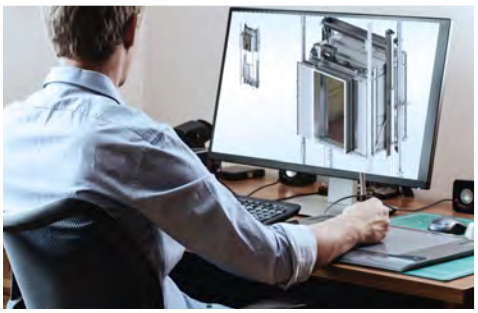
New Installation

# Elevator Product Guide

Elevator systems, options and finishes catalog

thyssenkrupp

# engineering. tomorrow. together.



Our Tennessee elevator factory earned a LEED for Existing Building: Operations and Maintenance Gold Certification

## Our reliable, premium products are built in the USA, delivered on time and at affordable prices.

**engineering.**
It is part of our identity. It describes how we think, in our factories, our offices, in every location. We invest in technological innovations and our reliable, premium products, built in the USA, are delivered on time at affordable prices.

**tomorrow.**
For over 200 years, thyssenkrupp has been shaping industrial history. But a prestigious past is not enough. Our services and solutions meet future demand, improve what already works and help give our customers a competitive advantage.

**together.**
Because the greatest goals can only be achieved together, we share our knowledge with you. You need to move people and we have the expertise to help you through every stage and detail. We can become and remain your reliable partner – that is our promise.

# Content

# Low-rise hydraulic elevators

Petroleum–free enviromax hydraulic fluid, holds a Platinum Material Health Certificate from Cradle to Cradle. Products Innovation Institute.

Material Health
PLATINUM

## Cost–effective, capable hydraulics get the job done whether you are moving a few or even thousands of people each day.

Small offices, shops, schools, worship facilities and hotels up to four stories need sensible options in elevators. The uncomplicated design of the hydraulic elevator uses fewer moving parts to lift heavy loads and keeps maintenance costs low. And you don't have to sacrifice building space or sustainability. Our hydraulic elevators use environmentally safe fluids and we even make an innovative elevator that fits entirely in the hoistway.

**Save thousands.**
Low maintenance costs saves tens of thousands spent over an elevators 25-year life span

**Interior quality.**
UL–validated, low-emitting materials exceed stringent indoor air quality standards

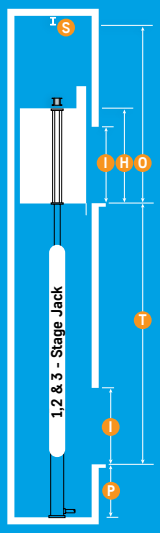
Speeds up to 200 fpm

Capacities up to 5000 pounds

# Reliable.
# Dependable.
# Powerful.

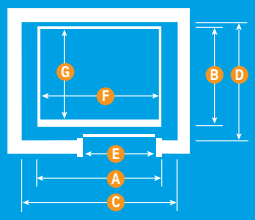
## Front opening

Front Opening (F)

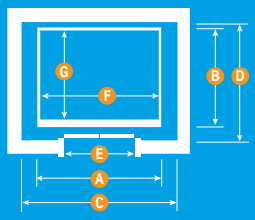



- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- S Safety Beam
- T Travel

1-SP Side-Opening Doors

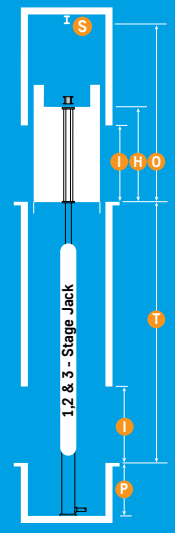



1-SP Center-Opening Doors



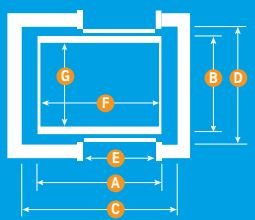

## Front and rear opening

Front & Rear Opening (F/R)

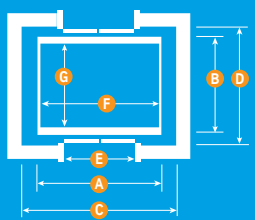



- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- S Safety Beam
- T Travel

1-SP Side-Opening Doors




1-SP Center-Opening Doors




Hydraulic machine room-less

# Twinpost above-ground

Passenger elevators

| Jack types | Travel | Speed | Capacity |
|---|---|---|---|
| 1-Stage | 12'-8"[1] | 80-150 fpm | 2100-4000 lbs |
| 2-Stage | 23'-2⅛"[1] | 80-150 fpm | 2100-4000 lbs |
| 3-Stage | 33'-6⅛"[1] | 80-150 fpm | 2100-4000 lbs |

Click Jack type for specific product specs

| Passenger | | 1- and 2-Stage | 3-Stage | | | | |
|---|---|---|---|---|---|---|---|
| Cap (lbs) | Platform A X B | Hoistway[2] C X D | Hoistway C X D | Front/ Rear | Inside clear F x G | Door type | Door width |
| 2100[3] | 6'-0" x 5'-1" | 7'-4" x 5'-9" | 7'-8" x 5'-9" | F | 5'-8" x 4'-3" | 1-SP | 3'-0" |
| 2100[3] | 6'-0" x 5'-8¼" | 7'-4" x 6'-8¼" | 7'-8" x 6'-8¼" | F/R | 5'-8" x 4'-3⅛" | 1-SP | 3'-0" |
| 2500 | 7'-0" x 5'-1" | 8'-4" x 5'-9" | 8'-8" x 5'-9" | F | 6'-8" x 4'-3" | 1-SP | 3'-6" |
| 2500 | 7'-0" x 5'-8¼" | 8'-4" x 6'-8¼" | 8'-8" x 6'-8¼" | F/R | 6'-8" x 4'-3⅛" | 1-SP | 3'-6" |
| 3000 | 7'-0" x 5'-7" | 8'-4" x 6'-3" | 8'-8" x 6'-3" | F | 6'-8" x 4'-9" | 1-SP | 3'-6" |
| 3000 | 7'-0" x 6'-2¼" | 8'-4" x 7'-2¼" | 8'-8" x 7'-2¼" | F/R | 6'-8" x 4'-9½" | 1-SP | 3'-6" |
| 3500[4] | 7'-0" x 6'-3" | 8'-4" x 6'-11" | 8'-8" x 6'-11" | F | 6'-8" x 5'-5" | 1-SP | 3'-6" |
| 3500[4] | 7'-0" x 6'-10¾" | 8'-4" x 7'-10¾" | 8'-8" x 7'-10⅞" | F/R | 6'-8" x 5'-5⅛" | 1-SP | 3'-6" |
| 4000[4] | 8'-0" x 6'-3" | 9'-4" x 6'-11" | 9'-8" x 6'-11" | F | 7'-8" x 5'-5" | 1-SP | 3'-6" / 4'-0" |
| 4000[4] | 8'-0" x 6'-10¾" | 9'-4" x 7'-10¾" | 9'-8" x 7'-10⅞" | F/R | 7'-8" x 5'-5⅛" | 1-SP | 3'-6" / 4'-0" |

Dimensional data shown above is for both seismic and non-seismic zones and complies with current ASME A17.1 and CSA B44 Safety Code for Elevators. Local codes may vary from the national codes. Consult your thyssenkrupp Elevator representative for details.

H Inside Clear Cab Height: 7'-4" [6]

I Entrance Height: 7'-0"

P Pit Depth: 4'-0"

O Minimum Overhead:

- Up to 100 fpm:
  **1-Stage** - 12'-2"
  **2-Stage** - 12'-8"
  **3-Stage** - 12'-11"
- Over 100 fpm:
  **1-Stage** - 12'-5"
  **2-Stage** - 12'-8"
  **3-Stage** - 12'-11"

T Additional Max Travel:

- **1-Stage**:
  Up to 100 fpm - 18'-11"
  Over 100 fpm - 18'-8"[1]
- **2-Stage**: 28'-6" [1]
- **3-Stage**: 48'-3⅛"[1]

S Safety Beam Required per OSHA 1926.502[7]

[1]A 5'-0" min. pit is required for addt'l travel. Travel above 13'-8" (1-Stage) or 25'-2½" (2-Stage) or 36'-6½" (3-Stage) requires addt'l pit and/or overhead by adding 1" for every **1"** (1-Stage) or **2"** (2-Stage) or **3"** (3-Stage) of additional travel. Max increase 2'-0" allowed in overhead.

[2]In areas where a 7" deep pit ladder is required, additional hoistway width or wall pocket will be required.

[3]This capacity is not available with center-opening doors.

[4]To meet the requirements of IBC code for 84" stretchers, a 4'-0" center-opening (for 4000 lbs capacity only) or 3'-6" side-opening (for 3500 lbs or 4000 lbs capacity) door is required.

[6]Dimension shown is based on suspended ceiling design. An increase in cab height will result in an increase in overhead requirements.

[7] Provided and installed by others, as directed by the local thyssenkrupp office. Clear overhead is shown to the bottom of the safety beam.

Hydraulic machine room-less

# Twinpost above-ground

Service elevators

| Jack types | Travel | Speed | Capacity |
|---|---|---|---|
| 1 Stage | 12'-8"[1] | 80-150 fpm | 4500-5000 lbs |
| 2 Stage | 23'-2 1/2"[1] | 80-150 fpm | 4500-5000 lbs |
| 3 Stage | 33'-6 1/2"[1] | 80-150 fpm | 4500-5000 lbs |

Click Jack type for specific product specs

| Service | | 1- and 2-Stage | 3-Stage | | | | |
|---|---|---|---|---|---|---|---|
| Cap (lbs) | Platform A X B | Hoistway[2] C X D | Hoistway C X D | Front/ Rear | Inside clear F x G | Door type | Door width |
| 4500[5] | 6'-0" x 8'-9" | 7'-4" x 9'-6 1/2" | 7'-8" x 9'-6 1/2" | F | 5'-8" x 7'-9 1/2" | 2-SP | 4'-0" / 4'-6" |
| 4500[5] | 6'-0" x 9'-5 3/4" | 7'-4" x 10'-9 1/4" | 7'-8" x 10'-9 1/4" | F/R | 5'-8" x 7'-10" | 2-SP | 4'-0" / 4'-6" |
| 5000[5] | 6'-0" x 9'-4 1/2" | 7'-4" x 10'-2" | 7'-8" x 10'-2" | F | 5'-8" x 8'-5" | 2-SP | 4'-0" / 4'-6" |
| 5000[5] | 6'-0" x 10'-1 1/4" | 7'-4" x 11'-4 3/4" | 7'-8" x 11'-4 3/4" | F/R | 5'-8" x 8'-5 1/2" | 2-SP | 4'-0" / 4'-6" |
| 5000H[5] | 6'-0" x 9'-11 1/2" | 7'-4" x 10'-9" | 7'-8" x 10'-9" | F | 5'-8" x 9'-0" | 2-SP | 4'-0" / 4'-6" |
| 5000H[5] | 6'-0" x 10'-8 1/4" | 7'-4" x 11'-11 7/8" | 7'-8" x 11'-11 7/8" | F/R | 5'-8" x 9'-0 1/2" | 2-SP | 4'-0" / 4'-6" |

Dimensional data shown above is for both seismic and non-seismic zones and complies with current ASME A17.1 and CSA B44 Safety Code for Elevators. Local codes may vary from the national codes. Consult your thyssenkrupp Elevator representative for details.

**H** Inside Clear Cab Height: 7'-4" [6]

**O** Minimum Overhead:

- Up to 100 fpm:
  **1-Stage** - 12'-2"
  **2-Stage** - 12'-8"
  **3-Stage** - 12'-11"
- Over 100 fpm:
  **1-Stage** - 12'-5"
  **2-Stage** - 12'-8"
  **3-Stage** - 12'-11"

**I** Entrance Height: 7'-0"

**T** Additional Max Travel:

- **1-Stage**:
  Up to 100 fpm - 18'-11"
  Over 100 fpm - 18'-8"[1]
- **2-Stage**: 28'-6" [1]
- **3-Stage**: 48'-3 1/2"[1]

**P** Pit Depth: 4'-0"

**S** Safety Beam Required per OSHA 1926.502[7]

[1] A 5'-0" min. pit is required for addt'l travel. Travel above 13'-8" (1-Stage) or 25'-2 1/2" (2-Stage) or 36'-6 1/2" (3-Stage) requires addt'l pit and/or overhead by adding 1" for every **1"** (1-Stage) or **2"** (2-Stage) or **3"** (3-Stage) of additional travel. Max increase 2'-0" allowed in overhead. (For 4500 and 5000 lbs capacities, max addt'l travel and speed could be reduced based on cab weights. Contact your local thyssenkrupp office for details.)

[2] In areas where a 7" deep pit ladder is required, additional hoistway width or wall pocket will be required.

[5] With optional 4'-6" two-speed side-opening door, hoistway width becomes 8'-2".

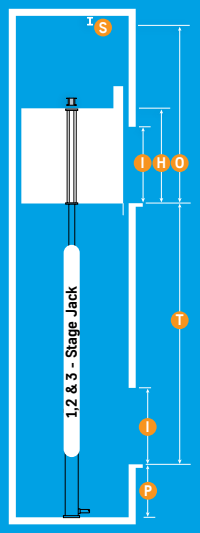
[6] Dimension shown is based on suspended ceiling design. An increase in cab height will result in an increase in overhead requirements.

[7] Provided and installed by others, as directed by the local thyssenkrupp office. Clear overhead is shown to the bottom of the safety beam.

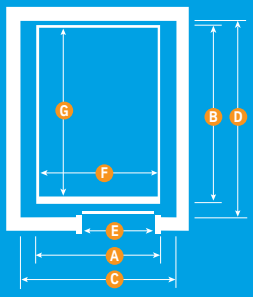
## Front opening

- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- S Safety Beam
- T Travel

Front Opening (F)



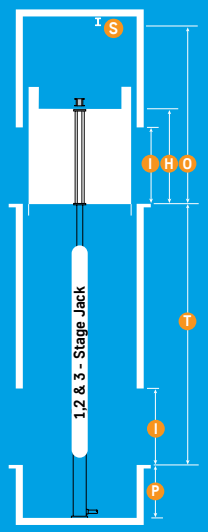

2-SP Side-Opening Doors



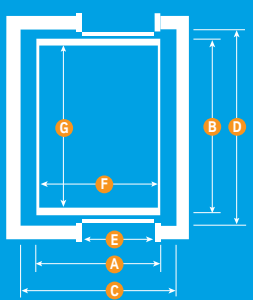

## Front and rear opening

- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- S Safety Beam
- T Travel

Front & Rear Opening (F/R)

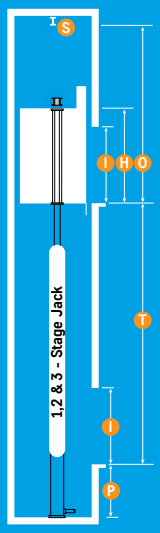



2-SP Side-Opening Doors



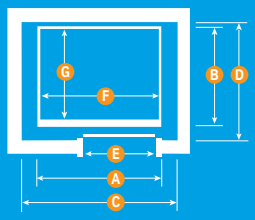
## Front opening

Front Opening (F)

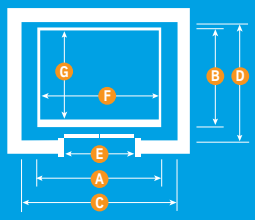



- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- S Safety Beam
- T Travel

1-SP Side-Opening Doors

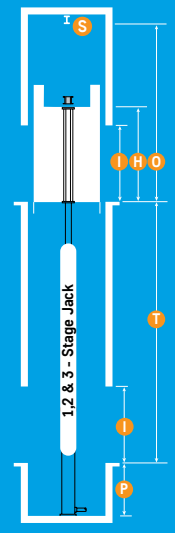



1-SP Center-Opening Doors



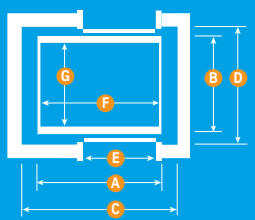

## Front and rear opening

Front & Rear Opening (F/R)

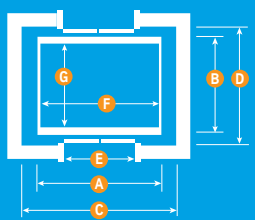



- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- S Safety Beam
- T Travel

1-SP Side-Opening Doors




1-SP Center-Opening Doors




Hydraulic with machine room

# Twinpost above-ground

Passenger elevators

| Jack types | Travel | Speed | Capacity |
|---|---|---|---|
| 1-Stage | 12'-8"[1] | 80-150 fpm | 2100-4000 lbs |
| 2-Stage | 23'-2½"[1] | 80-150 fpm | 2100-4000 lbs |
| 3-Stage | 33'-6½"[1] | 80-150 fpm | 2100-4000 lbs |

Click Jack type for specific product specs

| Passenger | | 1- and 2-Stage | 3-Stage | | | | |
|---|---|---|---|---|---|---|---|
| Cap (lbs) | Platform A X B | Hoistway[2] C X D | Hoistway C X D | Front/ Rear | Inside clear F x G | Door type | Door width |
| 2100[3] | 6'-0" x 5'-1" | 7'-4" x 5'-9" | 7'-8" x 5'-9" | F | 5'-8" x 4'-3" | 1-SP | 3'-0" |
| 2100[3] | 6'-0" x 5'-8¼" | 7'-4" x 6'-8¾" | 7'-8" x 6'-8¾" | F/R | 5'-8" x 4'-3½" | 1-SP | 3'-0" |
| 2500 | 7'-0" x 5'-1" | 8'-4" x 5'-9" | 8'-8" x 5'-9" | F | 6'-8" x 4'-3" | 1-SP | 3'-6" |
| 2500 | 7'-0" x 5'-8¼" | 8'-4" x 6'-8¾" | 8'-8" x 6'-8¾" | F/R | 6'-8" x 4'-3½" | 1-SP | 3'-6" |
| 3000 | 7'-0" x 5'-7" | 8'-4" x 6'-3" | 8'-8" x 6'-3" | F | 6'-8" x 4'-9" | 1-SP | 3'-6" |
| 3000 | 7'-0" x 6'-2¼" | 8'-4" x 7'-2¾" | 8'-8" x 7'-2¾" | F/R | 6'-8" x 4'-9½" | 1-SP | 3'-6" |
| 3500[4] | 7'-0" x 6'-3" | 8'-4" x 6'-11" | 8'-8" x 6'-11" | F | 6'-8" x 5'-5" | 1-SP | 3'-6" |
| 3500[4] | 7'-0" x 6'-10¼" | 8'-4" x 7'-10¾" | 8'-8" x 7'-10¾" | F/R | 6'-8" x 5'-5½" | 1-SP | 3'-6" |
| 4000[4] | 8'-0" x 6'-3" | 9'-4" x 6'-11" | 9'-8" x 6'-11" | F | 7'-8" x 5'-5" | 1-SP | 3'-6" / 4'-0" |
| 4000[4] | 8'-0" x 6'-10¼" | 9'-4" x 7'-10¾" | 9'-8" x 7'-10¾" | F/R | 7'-8" x 5'-5½" | 1-SP | 3'-6" / 4'-0" |

Dimensional data shown above is for both seismic and non-seismic zones and complies with current ASME A17.1 and CSA B44 Safety Code for Elevators. Local codes may vary from the national codes. Consult your thyssenkrupp Elevator representative for details.

**H** Inside Clear Cab Height: 7'-4"[6]

**I** Entrance Height: 7'-0"

**P** Pit Depth: 4'-0"

**O** Minimum Overhead:

- Up to 100 fpm:
  **1-Stage** - 12'-2"
  **2-Stage** - 12'-8"
  **3-Stage** - 12'-11"
- Over 100 fpm:
  **1-Stage** - 12'-5"
  **2-Stage** - 12'-8"
  **3-Stage** - 12'-11"

**T** Additional Max Travel:

- **1-Stage:**
  Up to 100 fpm - 18'-11"
  Over 100 fpm - 18'-8"[1]
- **2-Stage:** 28'-6"[1]
- **3-Stage:** 48'-3½"[1]

**S** Safety Beam Required per OSHA 1926.502[7]

[1] Additional travel in note T (above) is obtained by adding 1" of Overhead/Pit for every 1" (1-Stage) or 2" (2-Stage) or **3"** (3-Stage) of net travel over the standard. Max 2'-0" allowed in overhead.

[2] In areas where a 7" deep pit ladder is required, additional hoistway width or wall pocket will be required.

[3] This capacity is not available with center-opening doors.

[4] To meet the requirements of IBC code for 84" stretchers, a 4'-0" center-opening (for 4000 lbs capacity only) or 3'-6" side-opening (for 3500 lbs or 4000 lbs capacity) door is required.

[6] Dimension shown is based on suspended ceiling design. An increase in cab height will result in an increase in overhead requirements.

[7] Provided and installed by others, as directed by the local thyssenkrupp office. Clear overhead is shown to the bottom of the safety beam.

* Refer to page 12 for elevator machine room sizes.

Hydraulic with machine room

# Twinpost above-ground

Service elevators

| Jack types | Travel | Speed | Capacity |
|---|---|---|---|
| 1-Stage | 12'-8"[1] | 80-150 fpm | 4500-5000 lbs |
| 2-Stage | 23'-2 1/2"[1] | 80-150 fpm | 4500-5000 lbs |
| 3-Stage | 33'-6 1/2"[1] | 80-150 fpm | 4500-5000 lbs |

Click Jack type for specific product specs

| Service | | 1- and 2-Stage | 3-Stage | | | | |
|---|---|---|---|---|---|---|---|
| Cap (lbs) | Platform A X B | Hoistway[2] C X D | Hoistway C X D | Front/ Rear | Inside clear F x G | Door type | Door width |
| 4500[5] | 6'-0" x 8'-9" | 7'-4" x 9'-6 1/2" | 7'-8" x 9'-6 1/2" | F | 5'-8" x 7'-9 1/2" | 2-SP | 4'-0" / 4'-6" |
| 4500[5] | 6'-0" x 9'-5 3/4" | 7'-4" x 10'-9 1/4" | 7'-8" x 10'-9 1/4" | F/R | 5'-8" x 7'-10" | 2-SP | 4'-0" / 4'-6" |
| 5000[5] | 6'-0" x 9'-4 1/2" | 7'-4" x 10'-2" | 7'-8" x 10'-2" | F | 5'-8" x 8'-5" | 2-SP | 4'-0" / 4'-6" |
| 5000[5] | 6'-0" x 10'-1 1/4" | 7'-4" x 11'-4 3/4" | 7'-8" x 11'-4 3/4" | F/R | 5'-8" x 8'-5 1/2" | 2-SP | 4'-0" / 4'-6" |
| 5000H[5] | 6'-0" x 9'-11 1/2" | 7'-4" x 10'-9" | 7'-8" x 10'-9" | F | 5'-8" x 9'-0" | 2-SP | 4'-0" / 4'-6" |
| 5000H[5] | 6'-0" x 10'-8 3/4" | 7'-4" x 11'-11 3/4" | 7'-8" x 11'-11 3/4" | F/R | 5'-8" x 9'-0 1/2" | 2-SP | 4'-0" / 4'-6" |

Dimensional data shown above is for both seismic and non-seismic zones and complies with current ASME A17.1 and CSA B44 Safety Code for Elevators. Local codes may vary from the national codes. Consult your thyssenkrupp Elevator representative for details.

**H** Inside Clear Cab Height: 7'-4"[6]

**O** Minimum Overhead:
- Up to 100 fpm:
  **1-Stage** - 12'-2"
  **2-Stage** - 12'-8"
  **3-Stage** - 12'-11"
- Over 100 fpm:
  **1-Stage** - 12'-5"
  **2-Stage** - 12'-8"
  **3-Stage** - 12'-11"

**I** Entrance Height: 7'-0"

**T** Additional Max Travel:
- **1-Stage**:
  Up to 100 fpm - 18'-11"
  Over 100 fpm - 18'-8"[1]
- **2-Stage**: 28'-6"[1]
- **3-Stage**: 48'-3 1/2"[1]

**P** Pit Depth: 4'-0"

**S** Safety Beam Required per OSHA 1926.502[7]

[1] Additional travel in note T (above) is obtained by adding 1" of Overhead/Pit for every 1" (1-Stage) or 2" (2-Stage) or **3"** (3-Stage) of net travel over the standard. Max 2'-0" allowed in overhead. (For 4500 and 5000 lbs capacities, max addt'l travel and speed could be reduced based on cab weights. Contact your local thyssenkrupp office for details.)

[5] With optional 4'-6" two-speed side-opening door, hoistway width becomes 8'-4".

[6] Dimension shown is based on suspended ceiling design. An increase in cab height will result in an increase in overhead requirements.

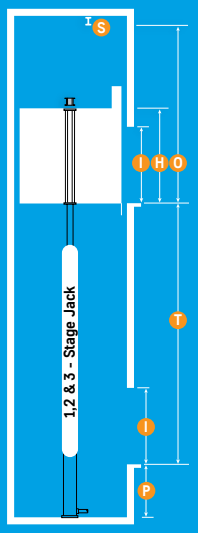
[7] Provided and installed by others, as directed by the local thyssenkrupp office. Clear overhead is shown to the bottom of the safety beam.

* Refer to page 12 for elevator machine room sizes.

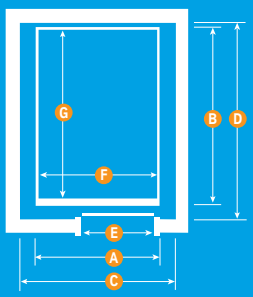
## Front opening

- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- S Safety Beam
- T Travel

Front Opening (F)



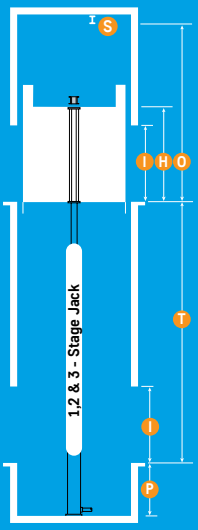

2-SP Side-Opening Doors



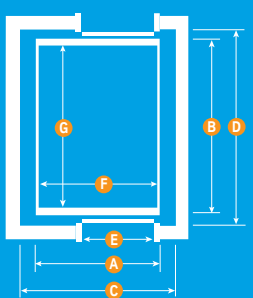

## Front and rear opening

- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- S Safety Beam
- T Travel

Front & Rear Opening (F/R)

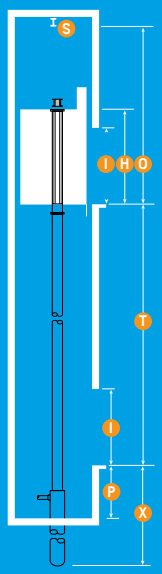



2-SP Side-Opening Doors



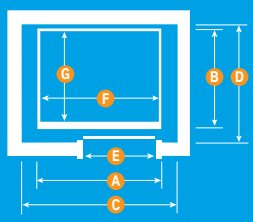
## Front opening

Front Opening (F)

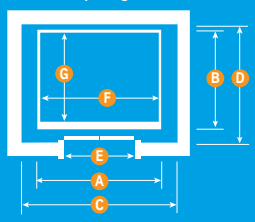



- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- S Safety Beam
- T Travel
- X Jack Hole Depth

1-SP Side-Opening Doors

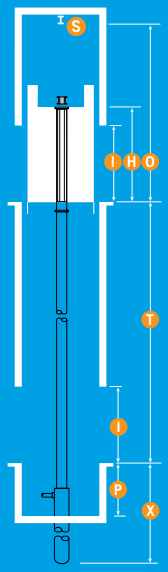



1-SP Center-Opening Doors



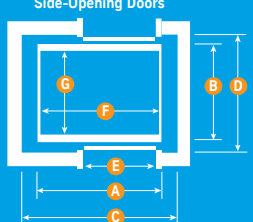

## Front and rear opening

Front & Rear Opening (F/R)

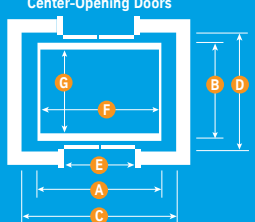



- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- S Safety Beam
- T Travel
- X Jack Hole Depth

1-SP Side-Opening Doors




1-SP Center-Opening Doors




Hydraulic with machine room

# Below-ground

Passenger elevators

| Jack types | Travel | Speed | Capacity |
|---|---|---|---|
| Conventional | 60'-0" | 80-200 fpm | 2100-4000 lbs |

Click Jack type for specific product specs

**Passenger**

| Cap (lbs) | Platform A X B | Hoistway[2] C X D | Front/ rear | Inside clear F x G | Door type | Door width |
|---|---|---|---|---|---|---|
| 2100[3] | 6'-0" x 5'-1" | 7'-4" x 5'-9" | F | 5'-8" x 4'-3" | 1-SP | 3'-0" |
| 2100[3] | 6'-0" x 5'-8¼" | 7'-4" x 6'-8¾" | F/R | 5'-8" x 4'-3½" | 1-SP | 3'-0" |
| 2500 | 7'-0" x 5'-1" | 8'-4" x 5'-9" | F | 6'-8" x 4'-3" | 1-SP | 3'-6" |
| 2500 | 7'-0" x 5'-8¼" | 8'-4" x 6'-8¾" | F/R | 6'-8" x 4'-3½" | 1-SP | 3'-6" |
| 3000 | 7'-0" x 5'-7" | 8'-4" x 6'-3" | F | 6'-8" x 4'-9" | 1-SP | 3'-6" |
| 3000 | 7'-0" x 6'-2¼" | 8'-4" x 7'-2¾" | F/R | 6'-8" x 4'-9½" | 1-SP | 3'-6" |
| 3500[4] | 7'-0" x 6'-3" | 8'-4" x 6'-11" | F | 6'-8" x 5'-5" | 1-SP | 3'-6" |
| 3500[4] | 7'-0" x 6'-10¼" | 8'-4" x 7'-10¾" | F/R | 6'-8" x 5'-5½" | 1-SP | 3'-6" |
| 4000[4] | 8'-0" x 6'-3" | 9'-4" x 6'-11" | F | 7'-8" x 5'-5" | 1-SP | 3'-6" / 4'-0" |
| 4000[4] | 8'-0" x 6'-10¼" | 9'-4" x 7'-10¾" | F/R | 7'-8" x 5'-5½" | 1-SP | 3'-6" / 4'-0" |

Dimensional data shown above is for both seismic and non-seismic zones and complies with current ASME A17.1 and CSA B44 Safety Code for Elevators. Local codes may vary from the national codes. Consult your thyssenkrupp Elevator representative for details.

- H Inside Clear Cab Height: 7'-4" [6]
- I Entrance Height: 7'-0"
- O Minimum Overhead:
  - Up to 100 fpm: 12'-0"
  - Over 100 fpm: 12'-3"
- P Pit Depth: 4'-0"
- S Safety Beam Required per OSHA 1926.502[7]
- X Standard Jack Hole Depth: Travel + 6'-0"

[2] In areas where a 7" deep pit ladder is required, additional hoistway width or wall pocket will be required.

[3] This capacity is not available with center-opening doors.

[4] To meet the requirements of IBC code for 84" stretchers, a 4'-0" center-opening (for 4000 lbs capacity only) or 3'-6" side-opening (for 3500 lbs or 4000 lbs capacity) door is required.

[6] Dimension shown is based on suspended ceiling design. An increase in cab height will result in an increase in overhead requirements.

[7] Provided and installed by others, as directed by the local thyssenkrupp office. Clear overhead is shown to the bottom of the safety beam.

* Refer to page 12 for elevator machine room sizes.

Hydraulic with machine room

# Below-ground

Service elevators

| Jack types | Travel | Speed | Capacity |
|---|---|---|---|
| Conventional | 60'-0" | 80-200 fpm | 4500-5000 lbs |

Click Jack type for specific product specs

| Service | | | | | | |
|---|---|---|---|---|---|---|
| Cap (lbs) | Platform A X B | Hoistway[2] C X D | Front/ rear | Inside clear F x G | Door type | Door width |
| 4500[5] | 6'-0" x 8'-9" | 7'-4" x 9'-6½" | F | 5'-8" x 7'-9½" | 2-SP | 4'-0" / 4'-6" |
| 4500[5] | 6'-0" x 9'-5¾" | 7'-4" x 10'-9¼" | F/R | 5'-8" x 7'-10" | 2-SP | 4'-0" / 4'-6" |
| 5000[5] | 6'-0" x 9'-4½" | 7'-4" x 10'-2" | F | 5'-8" x 8'-5" | 2-SP | 4'-0" / 4'-6" |
| 5000[5] | 6'-0" x 10'-1¼" | 7'-4" x 11'-4¾" | F/R | 5'-8" x 8'-5½" | 2-SP | 4'-0" / 4'-6" |
| 5000H[5] | 6'-0" x 9'-11½" | 7'-4" x 10'-9" | F | 5'-8" x 9'-0" | 2-SP | 4'-0" / 4'-6" |
| 5000H[5] | 6'-0" x 10'-8¼" | 7'-4" x 11'-11¾" | F/R | 5'-8" x 9'-0½" | 2-SP | 4'-0" / 4'-6" |

Dimensional data shown above is for both seismic and non-seismic zones and complies with current ASME A17.1 and CSA B44 Safety Code for Elevators. Local codes may vary from the national codes. Consult your thyssenkrupp Elevator representative for details.

H Inside Clear Cab Height: 7'-4" [6]

I Entrance Height: 7'-0"

O Minimum Overhead:
- Up to 100 fpm: 12'-0"
- Over 100 fpm: 12'-3"

P Pit Depth: 4'-0"

S Safety Beam Required per OSHA 1926.502[7]

X Standard Jack Hole Depth: Travel + 6'-0"

[2] In areas where a 7" deep pit ladder is required, additional hoistway width or wall pocket will be required.

[5] With optional 4'-6" two-speed side-opening door, hoistway width becomes 8'-2".

[6] Dimension shown is based on suspended ceiling design. An increase in cab height will result in an increase in overhead requirements.

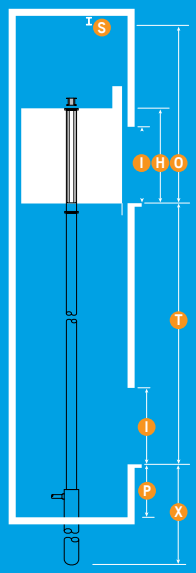
[7] Provided and installed by others, as directed by the local thyssenkrupp office. Clear overhead is shown to the bottom of the safety beam.

* Refer to page 12 for elevator machine room sizes.

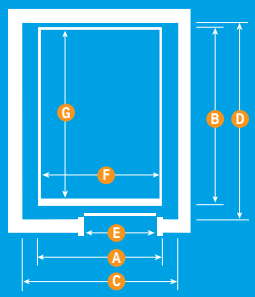
## Front opening

A Platform Width
B Platform Depth
C Hoistway Width
D Hoistway Depth
E Clear Door Opening
F Inside Clear Width
G Inside Clear Depth
H Inside Clear Height
I Entrance Height
O Overhead
P Pit Depth
S Safety Beam
T Travel
X Jack Hole Depth

Front Opening (F)



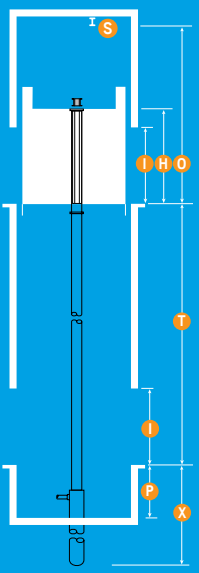

2-SP Side-Opening Doors



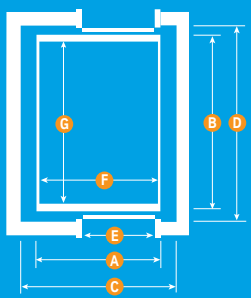

## Front and rear opening

A Platform Width
B Platform Depth
C Hoistway Width
D Hoistway Depth
E Clear Door Opening
F Inside Clear Width
G Inside Clear Depth
H Inside Clear Height
I Entrance Height
O Overhead
P Pit Depth
S Safety Beam
T Travel
X Jack Hole Depth

Front & Rear Opening (F/R)




2-SP Side-Opening Doors



# Hydraulic elevator machine rooms

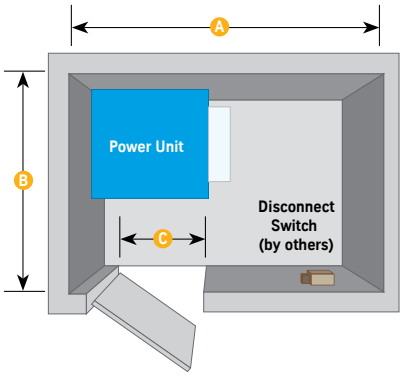
## endura

Your **endura** system determines the machine room you'll need.*

The most desirable controller closet location is on the lowest floor served, adjacent to the elevator hoistway. At an additional cost, machine room can be located remote from hoistway.

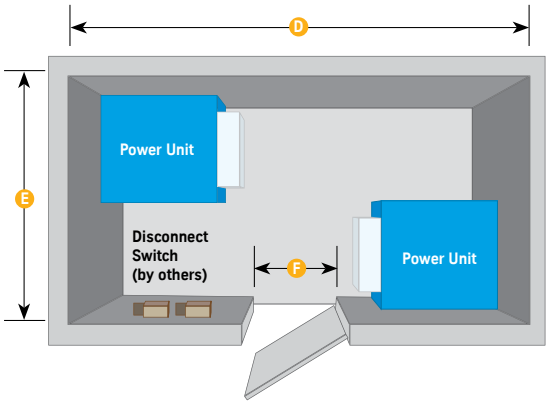
## Single-car configurations

Single-car
with dry unit




## Dual-car configurations

Dual-car
with dry unit




### Single-car[2]

| Power unit | A | B | C | Door height | Room height |
|---|---|---|---|---|---|
| Submersible (large) | 7'-2" | 7'-1⅛" | 4'-0" | Min 7'-0" | Min 7'-6" |
| Dry (large) | 9'-10" | 5'-6" | 4'-0" | Min 7'-0" | Min 7'-6" |

### Dual car[2]

| Power unit | A | B | C | Door height | Room height |
|---|---|---|---|---|---|
| Submersible (large) | 10'-5⅛" | 10'-5⅛" | 4'-0" | Min 7'-0" | Min 7'-6" |
| Dry (large) | 14'-7" | 7'-0¾" | 4'-0" | Min 7'-0" | Min 7'-6" |

[1] Clear opening.

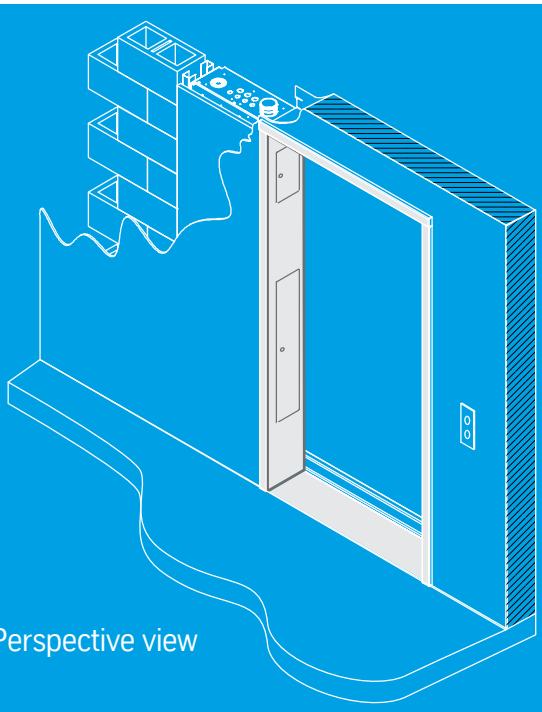
[2] Smaller machine rooms available in some cases, contact your thyssenkrupp Elevator respresentative if needed.

*Contact your local representative to help determine your needs, as machine room arrangments my vary from those shown.

# Hydraulic MRL controller details

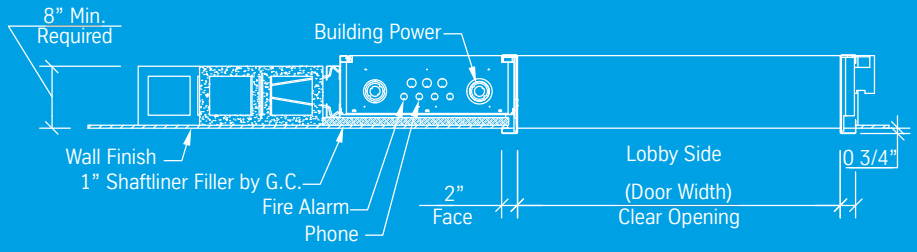
## **endura** MRL controller

Our **endura** MRL is designed to space by locating the controller in the elevator entrance jamb. As a result, we require a minimum 8" actual wall thickness at the floor that the controller will be located. The wall construction can be done with dry wall or masonry block. For installation purposes however the entire wall at the controller level must be left out until the elevator frame and controller are in place. The controller must be located at the landing directly above the lowest landing served by the elevator. If that is not possible, the location must be coordinated with your thyssenkrupp Elevator representative.

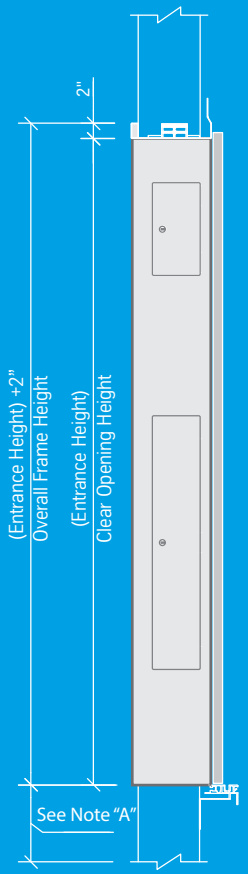


Perspective view

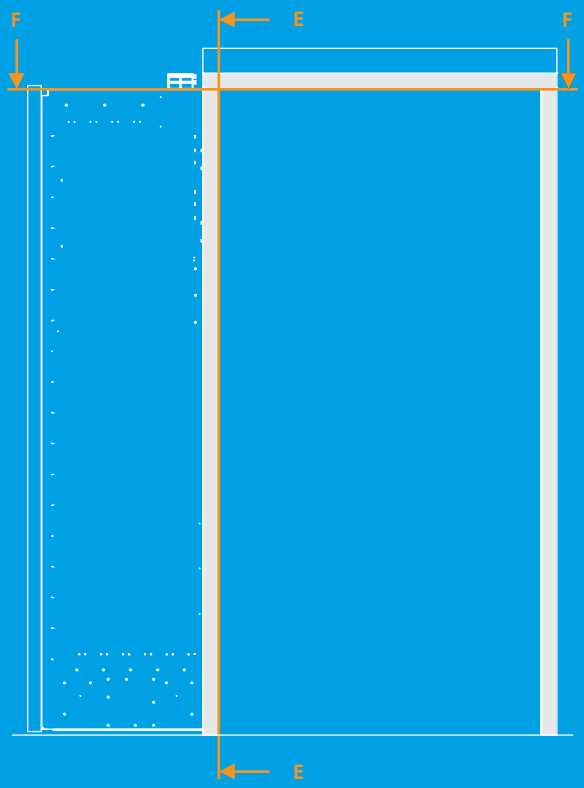
Entrance plan view F-F




Section E-E




Controller entrance elevation




Leave off entire front wall at floor 2 for frame and controller installation.

Note A: 8" minimum structural support for sill installation.

These illustrations are for reference purposes and not for construction purposes.

# Low-rise to mid-rise traction MRL

We have disclosed the chemical make-up and earned Health Product Declarations on our standard line of elevator cabs.

Health Product DECLARATION

## Traction elevators provide optimal ride quality, faster speeds and expend less time and energy to move people in your building.

Low- to Mid-rise buildings, up to 20 floors, are ideal for commercial, residential and mixed-use spaces that provide retail space close to where people live and work. So choosing an elevator that is flexible, takes up less space and transports people efficiently is a smart move. Our mid-rise elevators are available in two configurations, self- and building-supported. The machine room-less design will save leasable space and features our advanced regenerative drive technology.

**Save space.**
Saves up to 120 square feet traditionally used for a machine room

**Sustainablitity.**
Optional regenerative drive technology feeds generated power back into the building's grid reducing energy costs

**Quality Interiors.**
UL – validated, low-emitting materials exceed stringent indoor air quality standards

Speeds up to 500 fpm

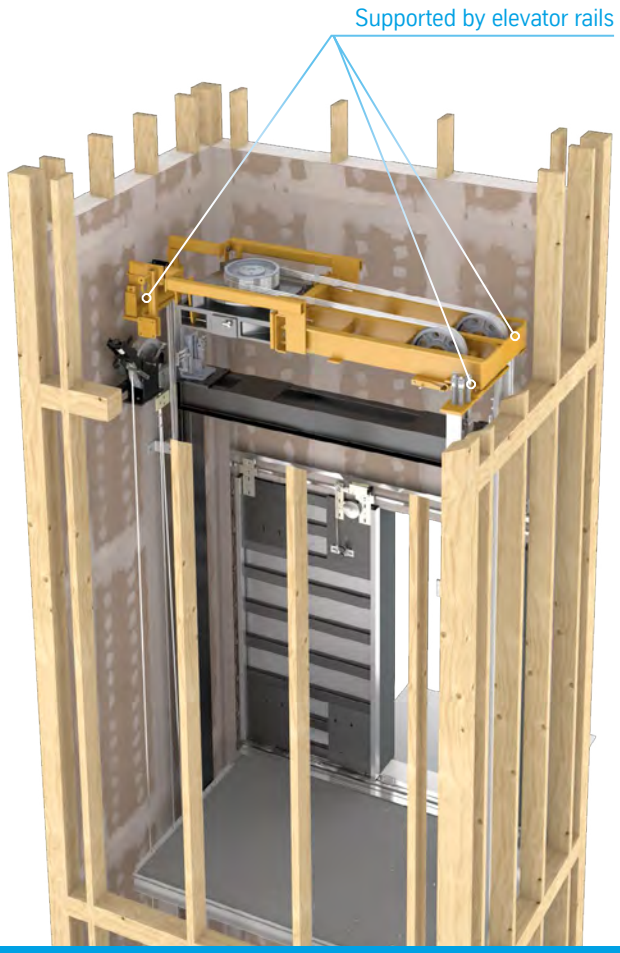
Capacities up to 5000 pounds

# Flexible.
# Efficient.
# Smart.

# Which is right for you?

Our **synergy** MRL traction elevators come in two different configurations: self-supported and building-supported. Read below to learn and discover which is right for your building.

## Self-supported

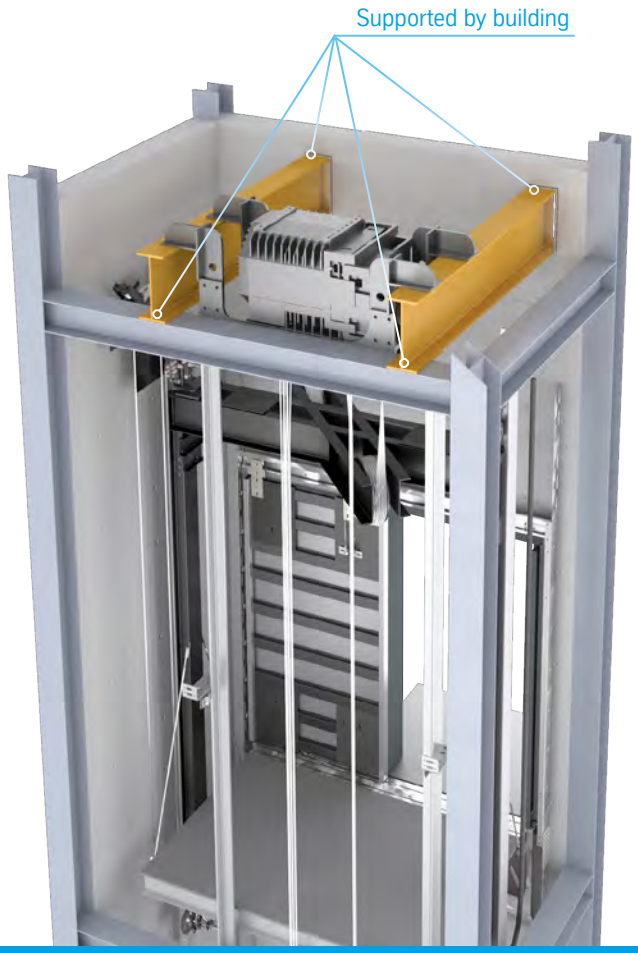



The self-supported configuration is engineered to allow the loads imposed by the elevator system to be transferred from the machine at the top of the hoistway, down the guide rails, to the pit below.

Configuration ideal for:

- Wood or similar construction not intended to carry the loads of an elevator system
- Buildings with travel distance up to 85'-0"
- Elevators capacity up to 3500 lbs and elevator speeds of 150 fpm
- Standard cab finishes and flooring

## Building-supported



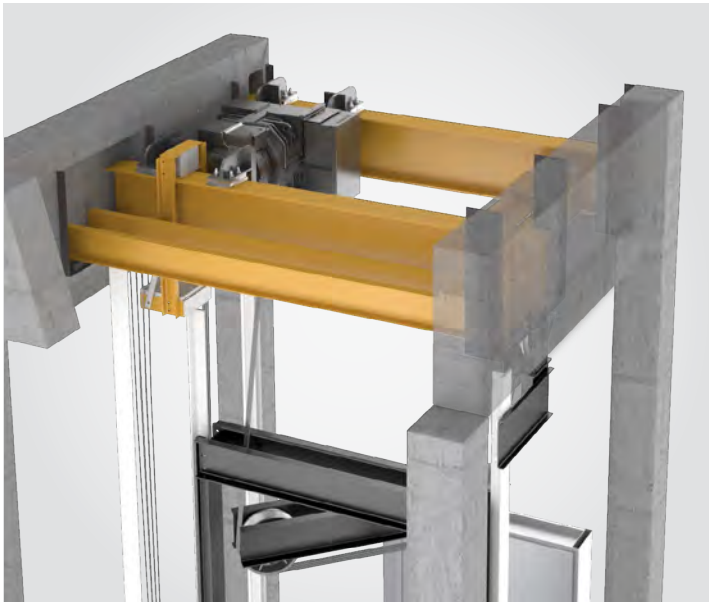

The building-supported configuration requires structural support by the building. As a result, this elevator is able to achieve faster speeds and higher capacities.

Configuration ideal for:

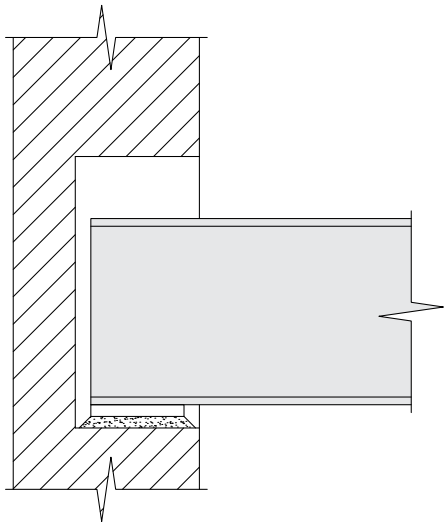
- Steel, concrete or other construction methods capable of carrying the loads of an elevator system
- Buildings with travel distance up to 300'-0"
- Elevators capacity up to 5000 lbs and elevator speeds up to 500 fpm
- Standard and Premium cab finishes and flooring

# Building supported connection details

Machine beam supported in beam pocket
on sides or front/back of hoistway

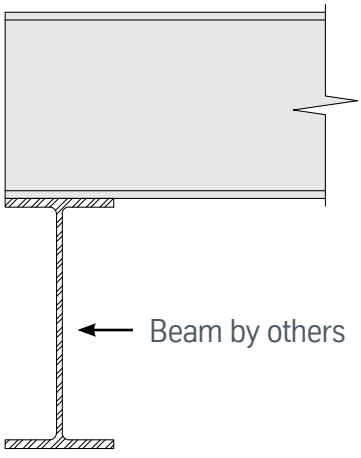


Machine beam supported in beam pocket



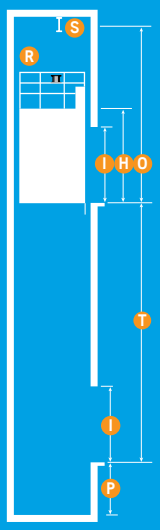
Machine beam supported by steel beam
on sides or front/back of hoistway

Machine beam supported by steel beam



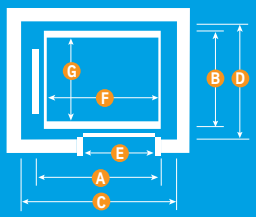
## Front opening

Front Opening (F)

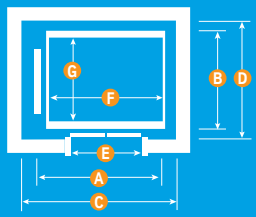



- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- R Car Top Railing
- S Safety Beam
- T Travel

1-SP Side-Opening Doors

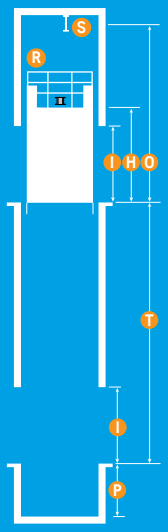



1-SP Center-Opening Doors



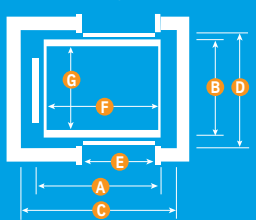

## Front and rear opening

Front & Rear Opening (F/R)

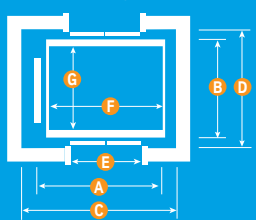



- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- R Car Top Railing
- S Safety Beam
- T Travel

1-SP Side-Opening Doors




1-SP Center-Opening Doors




Low-rise to mid-rise traction elevators

# Self-supported

Passenger standard

| Cab design | Max Travel | Speed | Capacity |
|---|---|---|---|
| Standard | 85'-0" | 150 fpm | 2100-3500 lbs |

Click Cab Design for specific product specs

**Passenger standard**

| Cap (lbs) | Platform A X B | Hoistway[2] C X D | Front/ rear | Inside clear F x G | Door type | Door width E | Min OH[7] O |
|---|---|---|---|---|---|---|---|
| 2100[3] | 6'-0" x 5'-1" | 7'-4" x 5'-9"[5] | F | 5'-8" x 4'-3" | 1-SP | 3'-0" | 13'-0" |
| 2100[3] | N/A | N/A | F/R | N/A | N/A | N/A | N/A |
| 2500 | 7'-0" x 5'-1" | 8'-4" x 5'-9" [5] | F | 6'-8" x 4'-3" | 1-SP | 3'-6" | 13'-0" |
| 2500 | 7'-0" x 5'-8¼" | 8'-4" x 6'-8¼" [6] | F/R | 6'-8" x 4'-3½" | 1-SP | 3'-6" | 13'-0" |
| 3000 | 7'-0" x 5'-7" | 8'-4" x 6'-3" [6] | F | 6'-8" x 4'-9" | 1-SP | 3'-6" | 13'-4" |
| 3000 | 7'-0" x 6'-2¼" | 8'-4" x 7'-2⅞" [6] | F/R | 6'-8" x 4'-9½" | 1-SP | 3'-6" | 13'-4" |
| 3500[4] | 7'-0" x 6'-3" | 8'-4" x 6'-11" [6] | F | 6'-8" x 5'-5" | 1-SP | 3'-6" | 13'-4" |
| 3500[4] | 7'-0" x 6'-10¼" | 8'-4" x 7'-10¾" [6] | F/R | 6'-8" x 5'-5½" | 1-SP | 3'-6" | 13'-4" |

Dimensional data shown above is for non-seismic zones and complies with current ASME A17.1 and CSA B44 Safety Code for Elevators. Local codes may vary from the national codes. Consult your thyssenkrupp Elevator representative for details.

P Pit Depth: 5'-0"

H Inside Clear Cab Height: 7'-2⅞" [1]

S Safety Beam Required per OSHA 1926.502[8]

[1]Inside clear cab heights of 8'-2¾" and 9'-2¾" also available. Dimension shown is based on suspended ceiling design. An increase in cab height will result in an increase in overhead requirements.

[2]Pocket required for pit ladder with standard hoistway sizes.

[3]This capacity is not available with center-opening doors.

[4]To meet the requirements of IBC code for 84" stretchers, a 3'-6" side-opening door is required.

[5]For Seismic Zones 2 or greater, add 4" to hoistway width and 1" to hoistway depth.

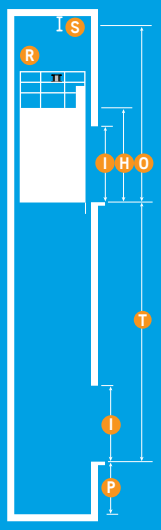
[6]For Seismic Zones 2 or greater, add 4" to hoistway width.

[7]Overhead requirements increase by 2" with groups of two or more cars and/or seismic conditions. For areas enforcing pre-2008 ASME A17.1 Safety Code for Elevators, contact your local representative for overhead requirements.

[8]Provided and installed by others, as directed by the local thyssenkrupp office. Clear overhead is shown to the bottom of the safety beam.

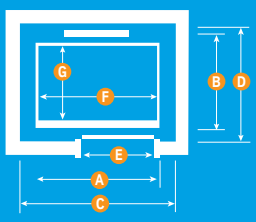
## Front opening

Front Opening (F)

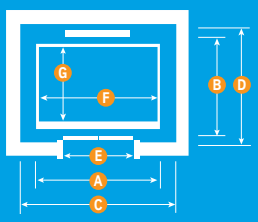



- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- R Car Top Railing
- S Safety Beam
- T Travel

1-SP Side-Opening Doors

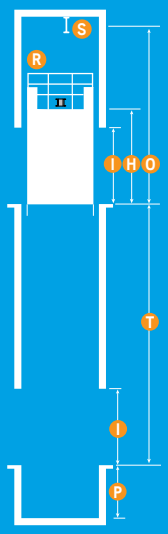



1-SP Center-Opening Doors



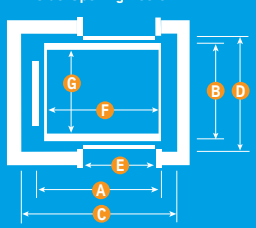

## Front and rear opening

Front & Rear Opening (F/R)

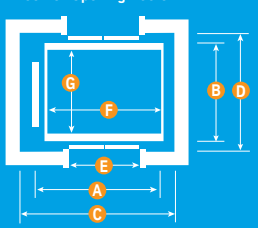



- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- R Car Top Railing
- S Safety Beam
- T Travel

1-SP Side-Opening Doors




1-SP Center-Opening Doors




Low-rise to mid-rise traction elevators

# Building supported

Passenger standard

| Cab Design | Max Travel | Speed | Capacity |
|---|---|---|---|
| Standard | 300'-0" | 200, 350 fpm | 2500-4000 lbs |
| Premium | 300'-0" | 200, 350 fpm | 2500-4000 lbs |

Click Cab Design for specific product specs

**Passenger standard**

| Cap (lbs) | Platform A X B | Hoistway[2] C X D | Front/ rear | Inside clear F x G | Door type | Door width E |
|---|---|---|---|---|---|---|
| 2500 | 7'-0" x 5'-1" | 8'-4" x 6'-8" [4] | F | 6'-8" x 4'-3" | 1-SP | 3'-6" |
| 2500[6] | 7'-0" x 5'-1" | 9'-2" x 5'-9" [5] | F | 6'-8" x 4'-3" | 1-SP | 3'-6" |
| 2500 | 7'-0" x 5'-8¼" | 9'-2" x 6'-8¾" [5] | F/R | 6'-8" x 4'-3½" | 1-SP | 3'-6" |
| 3000 | 7'-0" x 5'-7" | 8'-4" x 7'-2" [4] | F | 6'-8" x 4'-9" | 1-SP | 3'-6" |
| 3000[6] | 7'-0" x 5'-7" | 9'-2" x 6'-3" [5] | F | 6'-8" x 4'-9" | 1-SP | 3'-6" |
| 3000 | 7'-0" x 6'-2¼" | 9'-2" x 7'-2¾" [5] | F/R | 6'-8" x 4'-9½" | 1-SP | 3'-6" |
| 3500[2] | 7'-0" x 6'-3" | 8'-4" x 7'-10" [4] | F | 6'-8" x 5'-5" | 1-SP | 3'-6" |
| 3500[2,6] | 7'-0" x 6'-3" | 9'-2" x 6'-11" [5] | F | 6'-8" x 5'-5" | 1-SP | 3'-6" |
| 3500[2] | 7'-0" x 6'-10¼" | 9'-2" x 7'-10¾" [5] | F/R | 6'-8" x 5'-5½" | 1-SP | 3'-6" |
| 4000[2,3] | 8'-0" x 6'-3" | 9'-4" x 7'-10" [4] | F | 7'-8" x 5'-5" | 1-SP | 3'-6" / 4'-0" |
| 4000[6] | 8'-0" x 6'-3" | 10'-2" x 6'-11" [5] | F | 7'-8" x 5'-5" | 1-SP | 3'-6" / 4'-0" |
| 4000[2,3] | 8'-0" x 6'-10¼" | 10'-2" x 7'-10¾" [5] | F/R | 7'-8" x 5'-5½" | 1-SP | 3'-6" / 4'-0" |

Dimensional data shown above is for non-seismic zones and complies with current ASME A17.1 and CSA B44 Safety Code for Elevators. Local codes may vary from the national codes. Consult your thyssenkrupp Elevator representative for details.

**P** Pit Depth:
- 200 fpm: 5'-0"
- 350 fpm: 5'-5"

**O** Minimum Overhead: [1]
- 200 fpm: 14'-9"
- 350 fpm: 15'-5"

**H** Inside Clear Cab Height: 7'-2¾" [1]

[1]Inside clear cab heights up to 9'-2¾" available in 1" increments. Dimension shown is based on suspended ceiling design. An increase in cab height will result in an increase in overhead requirements.

[2]To meet the requirements of IBC code for 84" stretchers, a 4'-0" center-opening (for 4000 lbs capacity only) or 3'-6" side-opening (for 3500 lbs or 4000 lbs capacity) door is required.

[3]200 fpm unavailable for 4000 lbs capacity.

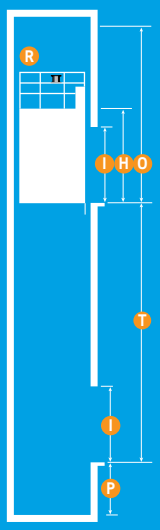
[4]For Seismic Zones 2 or greater, add 2" to hoistway width.

[5]For Seismic Zones 2 or greater, add 4" to hoistway width.

[6]Configuration with side counterweight on front opening arrangement.

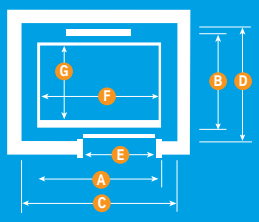
## Front opening

Front Opening (F)

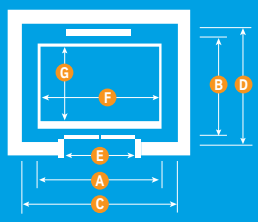



- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- R Car Top Railing
- T Travel

1-SP Side-Opening Doors

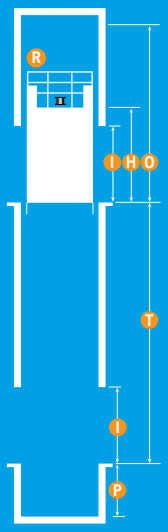



1-SP Center-Opening Doors



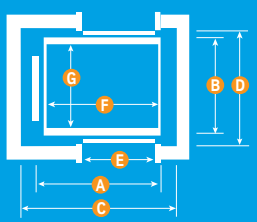

## Front and rear opening

Front & Rear Opening (F/R)

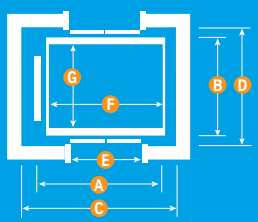



- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- R Car Top Railing
- T Travel

1-SP Side-Opening Doors




1-SP Center-Opening Doors




Low-rise to mid-rise traction elevators

# Building supported

Passenger performance

| Cab design | Travel | Speed | Capacity |
|---|---|---|---|
| Standard | 300'-0" | 200, 350, 500 fpm | 2100-4000 lbs |
| Premium | 300'-0" | 200, 350, 500 fpm | 2100-4000 lbs |

Click Cab Design for specific product specs

### Passenger performance

| Cap (lbs) | Platform A X B | Hoistway C X D | Front/ rear | Inside clear F x G | Door type | Door width E |
|---|---|---|---|---|---|---|
| 2100[2] | 6'-0" x 5'-1" | 7'-4" x 6'-8" [5] | F | 5'-8" x 4'-3" | 1-SP | 3'-0" |
| 2500 | 7'-0" x 5'-1" | 8'-4" x 6'-8" [5] | F | 6'-8" x 4'-3" | 1-SP | 3'-6" |
| 2500 | 7'-0" x 5'-8¾" | 9'-2" x 6'-8¾" [6] | F/R | 6'-8" x 4'-3½" | 1-SP | 3'-6" |
| 3000 | 7'-0" x 5'-7" | 8'-4" x 7'-2" [5] | F | 6'-8" x 4'-9" | 1-SP | 3'-6" |
| 3000 | 7'-0" x 6'-2¼" | 9'-2" x 7'-2¾" [6] | F/R | 6'-8" x 4'-9½" | 1-SP | 3'-6" |
| 3500[3] | 7'-0" x 6'-3" | 8'-4" x 7'-10" [5] | F | 6'-8" x 5'-5" | 1-SP | 3'-6" |
| 3500[3] | 7'-0" x 6'-10¼" | 9'-2" x 7'-10¾" [6] | F/R | 6'-8" x 5'-5½" | 1-SP | 3'-6" |
| 4000[3] | 8'-0" x 6'-3" | 9'-4" x 7'-10" [5] | F | 7'-8" x 5'-5" | 1-SP | 3'-6" / 4'-0" |

Dimensional data shown above is for non-seismic zones and complies with current ASME A17.1 and CSA B44 Safety Code for Elevators. Local codes may vary from the national codes. Consult your thyssenkrupp Elevator representative for details.

**P** Pit Depth:

- 200 fpm: 5'-0"
- 350 fpm: 5'-5"
- 500 fpm: 6'-6"

**O** Minimum Overhead:

- 200 fpm: 16'-0" (for front-opening 2100-4000 lbs capacities only), 16'6" (for front/rear-opening 2100-4000 lbs capacities)
- 350 fpm: 16'-4"
- 500 fpm: 17'-6"

**H** Inside Clear Cab Height: 7'-4" [1]

[1] Inside clear cab heights available in 1" increments. Dimension shown is based on suspended ceiling design. An increase in cab height will result in an increase in overhead requirements.

[2] This capacity is not available with center-opening doors.

[3] To meet the requirements of IBC code for 84" stretchers, a 4'-0" center-opening (for 4000 lbs capacity only) or 3'-6" side-opening (for 3500 lbs or 4000 lbs capacity) door is required.

[5] For Seismic Zones 2 or greater, add 4" to hoistway width and 2" to hoistway depth.

[6] For Seismic Zones 2 or greater, add 7" to hoistway width.

Low-rise to mid-rise traction elevators

# Building supported

## Service performance

| Cab design | Travel | Speed | Capacity |
|---|---|---|---|
| Standard | 300'-0" | 200, 350, 500 fpm | 4500-5000 lbs |
| Premium | 300'-0" | 200, 350, 500 fpm | 4500-5000 lbs |

Click Cab Design for specific product specs

**Service performance**

| Cap (lbs) | Platform A X B | Hoistway C X D | Front/ rear | Inside clear F x G | Door type | Door width E |
|---|---|---|---|---|---|---|
| 4500[4] | 6'-0" x 8'-9" | 8'-2" x 9'-8"[6] | F | 5'-8" x 7'-9 1/2" | 2-SP | 4'-0" / 4'-6" |
| 4500[4] | 6'-0" x 9'-5 3/4" | 8'-2" x 10'-9 3/4"[6] | F/R | 5'-8" x 7'-10" | 2-SP | 4'-0" / 4'-6" |
| 5000[4] | 6'-0" x 9'-4 1/2" | 8'-2" x 10'-2"[6] | F | 5'-8" x 8'-5" | 2-SP | 4'-0" / 4'-6" |
| 5000[4] | 6'-0" x 10'-1 1/4" | 8'-2" x 11'-4 3/4"[6] | F/R | 5'-8" x 8'-5 1/2" | 2-SP | 4'-0" / 4'-6" |
| 5000H[4] | 6'-0" x 9'-11 1/2" | 8'-2" x 10'-9"[6] | F | 5'-8" x 9'-0" | 2-SP | 4'-0" / 4'-6" |
| 5000H[4] | 6'-0" x 10'-8 3/4" | 8'-2" x 11'-11 3/4"[6] | F/R | 5'-8" x 9'-0 1/2" | 2-SP | 4'-0" / 4'-6" |

Dimensional data shown above is for non-seismic zones and complies with current ASME A17.1 and CSA B44 Safety Code for Elevators. Local codes may vary from the national codes. Consult your thyssenkrupp Elevator representative for details.

**P** Pit Depth:
- 200 fpm: 5'-0"
- 350 fpm: 5'-5"
- 500 fpm: 6'-6"

**O** Minimum Overhead:
- 200 fpm: 16'-6"
- 350 fpm: 16'-4"
- 500 fpm: 17'-6"

**H** Inside Clear Cab Height: 7'-4" [1]

[1] Inside clear cab heights available in 1" increments. Dimension shown is based on suspended ceiling design. An increase in cab height will result in an increase in overhead requirements.

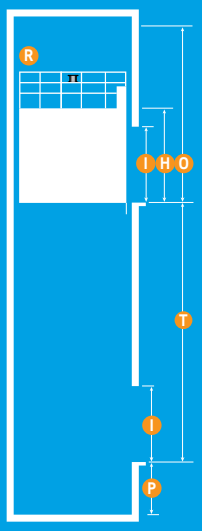
[4] With optional 4'-6" two-speed side-opening door, hoistway width becomes 8'-2".

[6] For Seismic Zones 2 or greater, add 7" to hoistway width.

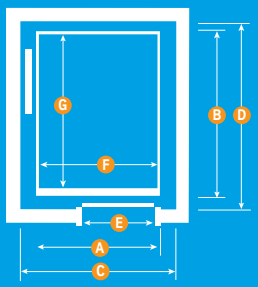
## Front opening

- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- R Car Top Railing
- T Travel

Front Opening (F)



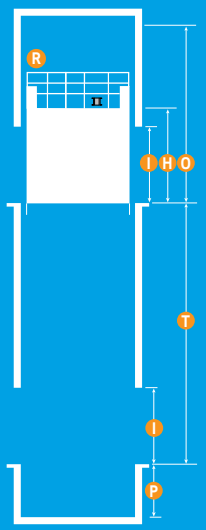

2-SP Side-Opening Doors



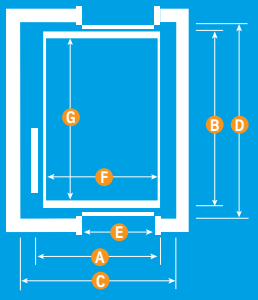

## Front and rear opening

- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- R Car Top Railing
- T Travel

Front & Rear Opening (F/R)




2-SP Side-Opening Doors



# Controller closets

## **synergy** self-supported

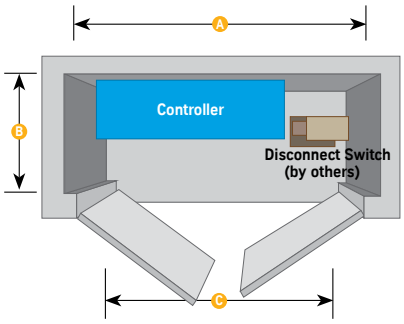
The features of your **synergy** MRL traction system determine the controller closet you'll need.*

The most desirable controller closet location is on the top floor served, adjacent to the elevator hoistway.
At an additional cost, it may be located remotely, contact your thyssenkrupp Elevator representative for details.

## Simplex

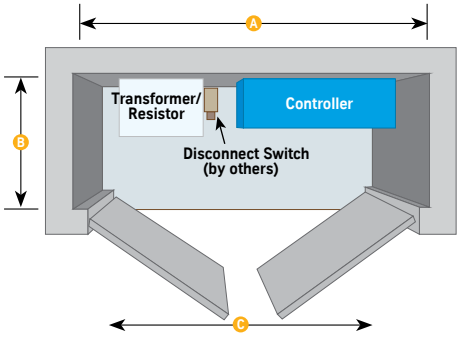
### Small

Includes room for controller, disconnect, and resistor box.




### Large

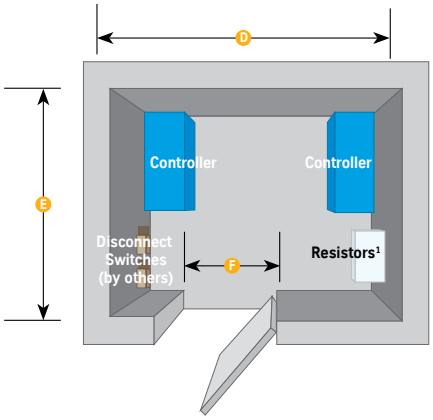
Includes room for controller, disconnect, emergency rescue, transformer and resistor box.




## Duplex

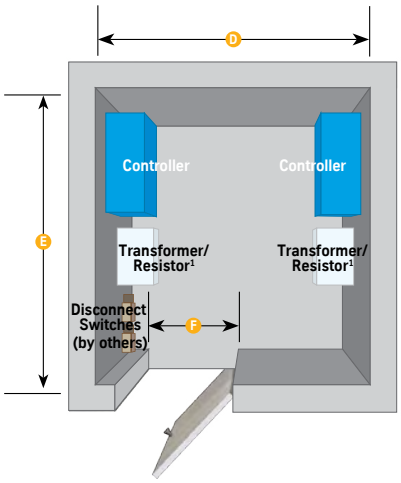
### Small

Includes room for controller, disconnect, and resistor boxes.




### Large

Includes room for controller, disconnect, emergency rescue, transformer and resistor boxes.




### Simplex[2]

| Size | A | B | C |
|---|---|---|---|
| Small | 4'-4" | 1'-8" | 4'-0" |
| Large | 6'-6" | 2'-6" | 6'-0" |

### Duplex[2,3]

| Size | D | E | F |
|---|---|---|---|
| Small | 7'-0" | 5'-6" | 3'-0" |
| Large | 7'-0" | 7'-8" | 3'-0" |

Dimensional data shown above is for both seismic and non-seismic zones and complies with current ASME A17.1 and CSA B44 Safety Code for Elevators. Local codes may vary from the national codes. Consult your thyssenkrupp Elevator representative for details.

[2] Controller closet temperature range 32°F minimum, 104°F maximum. 10-95% non-condensing relative humidity.

[3] May also use two separate closets.

# Controller closets

## **synergy** building-supported

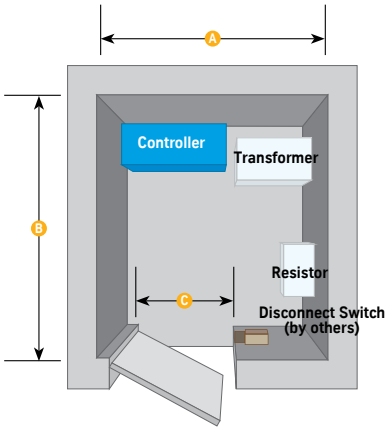
The features of your **synergy** MRL traction system determine the controller closet you'll need.*

The most desirable controller closet location is on the top floor served, adjacent to the elevator hoistway.
At an additional cost, it may be located remotely, contact your thyssenkrupp Elevator representative for details.

## Simplex

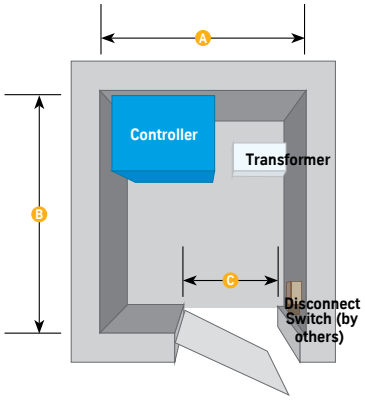
### Standard

Includes room for controller, disconnect, transformer and resistor box.




### Performance

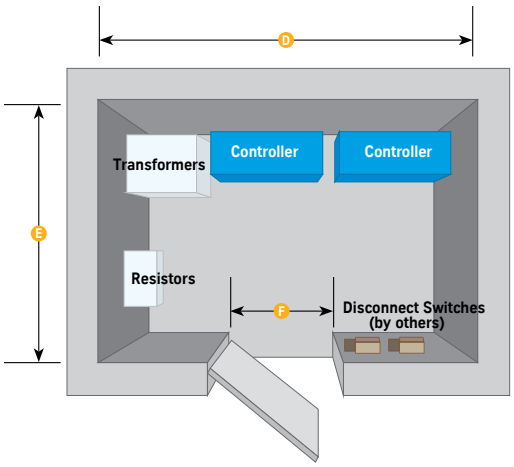
Includes room for controller, disconnect and transformer.




## Duplex

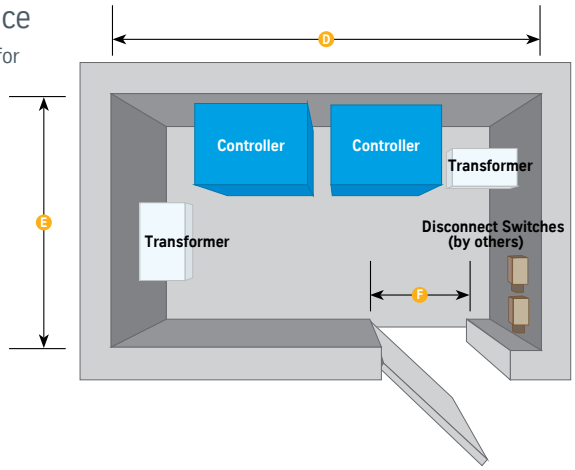
### Standard

Includes room for controllers, disconnects, transformers and resistor boxes.




### Performance

Includes room for controllers, disconnect and transformer.




### Simplex[2]

| Size | A | B | C |
|---|---|---|---|
| Standard | 5'-6" | 6'-4" | 3'-0" |
| Performance | 5'-0" | 5'-11" | 3'-0" |

### Duplex[1]

| Size | D | E | F |
|---|---|---|---|
| Standard | 8'-6" | 6'-0" | 3'-0" |
| Performance | 10'-0" | 5'-11" | 3'-0" |

[2]Controller closet temperature range 32°F minimum, 104°F maximum. 10–95% non-condensing relative humidity.

*Contact your local representative to help determine your needs.

# Mid-rise to high-rise traction

thyssenkrupp supports the United Stated Green Building Council and is a visionary sponsor of the International Living Future Institute.

## When height and speed are essential, our high-rise elevators can adapt to your vision as quickly as we can move people.

The world's high-rise buildings are skyrocketing to over 2,000 feet. And our elevators can reach the top because of advanced technology and the creativity of our most experienced engineers. The result is an elevator that moves with precision and speed, while remaining remarkably energy efficient and reliable. There are few restrictions on travel height and with speeds up to 2000 feet per minute the technology can be adapted to buildings that truly want it all.

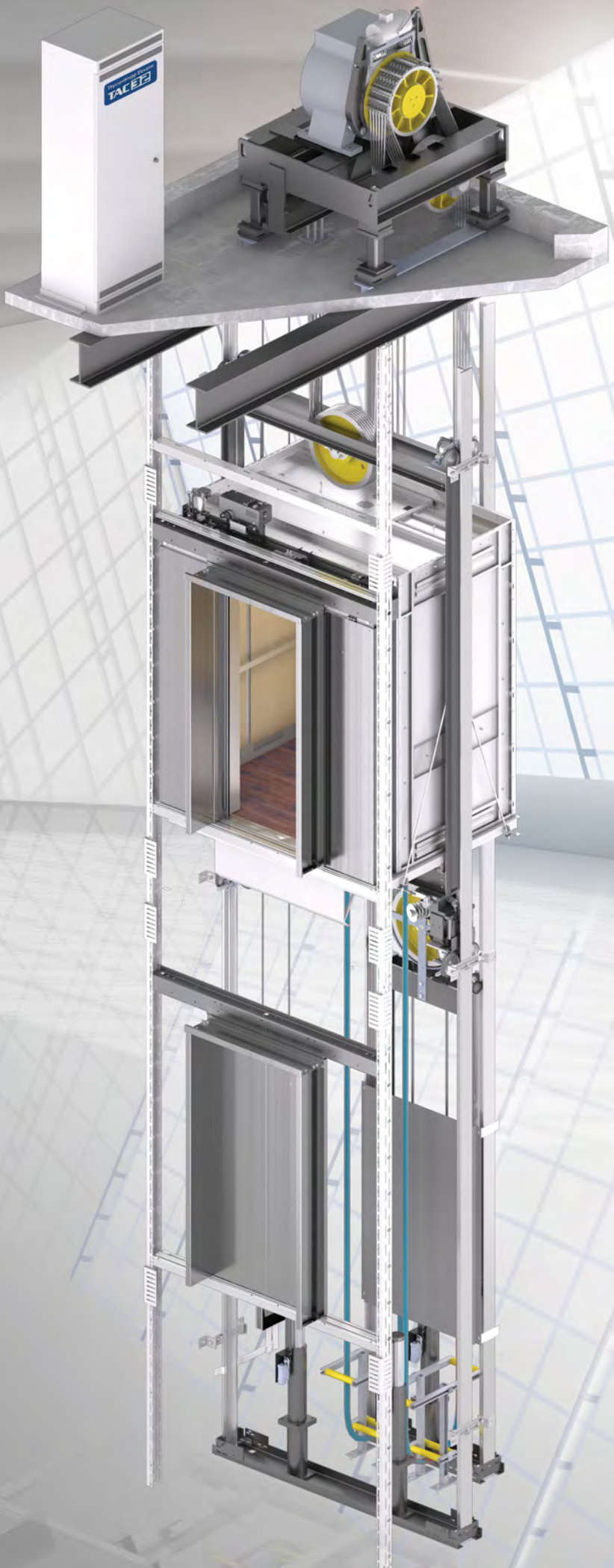
**Superior efficiency.**
AC Gearless machine improves efficiency

**Sustainablitity.**
Regenerative drive technology feeds generated power back into the building's grid reducing energy costs

**Interior Quality.**
UL – validated, low-emitting materials exceed indoor air quality standards

Speeds 1200 - 2000 fpm

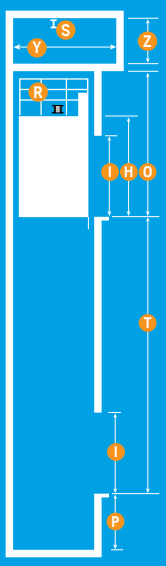
Capacities up to 5000 pounds



# Speed.
# Innovation.
# Freedom.

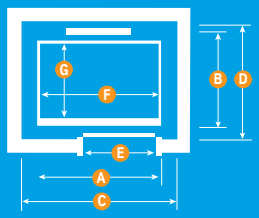
# Front opening

Front Opening (F)

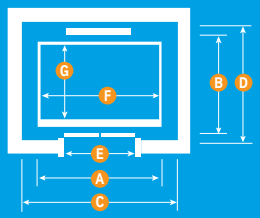



- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- R Car Top Railing
- S Safety Beam
- T Travel
- Y MR Depth
- Z MR Height

1-SP Side-Opening Doors

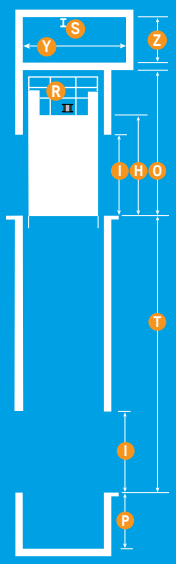



1-SP Center-Opening Doors



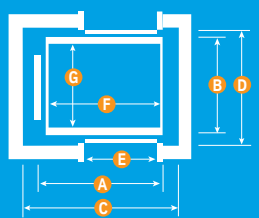

# Front and rear opening

Front & Rear Opening (F/R)

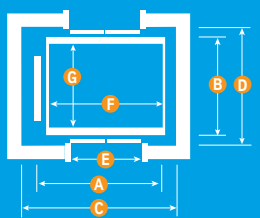



- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- R Car Top Railing
- S Safety Beam
- T Travel
- Y MR Depth
- Z MR Height

1-SP Side-Opening Doors




1-SP Center-Opening Doors




Mid-rise to high-rise traction elevators

# AC gearless

Passenger elevators

| Car type | Travel | Speed | Capacity |
|---|---|---|---|
| Standard | 300'-0" | 350, 500 fpm | 2100-4000 lbs |
| Performance | 825'-0" | 700, 1000, 1200 fpm | 2500-4000 lbs |

Click Car Type for specific product specs

**Passenger** (P) Performance Speed and Travel Available

| Cap (lbs) | Platform A X B | Hoistway[2] C X D | Front/ rear | Inside clear F x G | Door type | Door width E |
|---|---|---|---|---|---|---|
| 2100[1] | 6'-0" x 5'-1" | 7'-4" x 5'-9"[3] | F | 5'-8" x 4'-3" | 1-SP | 3'-0" |
| 2500 (P) | 7'-0" x 5'-1" | 8'-4" x 6'-8"[9] | F | 6'-8" x 4'-3" | 1-SP | 3'-6" |
| 2500 | 7'-0" x 5'-8¾" | 8'-4" x 6'-8"[4] | F/R | 6'-8" x 4'-3½" | 1-SP | 3'-6" |
| 3000 (P) | 7'-0" x 5'-7" | 8'-4" x 7'-2"[9] | F | 6'-8" x 4'-9" | 1-SP | 3'-6" |
| 3000 | 7'-0" x 6'-2¼" | 8'-4" x 7'-2¾"[4] | F/R | 6'-8" x 4'-9½" | 1-SP | 3'-6" |
| 3500[2] (P) | 7'-0" x 6'-3" | 8-4" x 7'-10"[9] | F | 6'-8" x 5'-5" | 1-SP | 3'-6" |
| 3500[2] | 7'-0" x 6'-10¼" | 9'-2" x 7'-10¾"[4] | F/R | 6'-8" x 5'-5½" | 1-SP | 3'-6" |
| 4000[2] (P) | 8'-0" x 6'-3" | 9'-4" x 7'-10"[4] | F | 7'-8" x 5'-5" | 1-SP | 3'-6" / 4'-0" |

Dimensional data shown above is for non-seismic zones and complies with current ASME A17.1 and CSA B44 Safety Code for Elevators. Local codes may vary from the national codes. Consult your thyssenkrupp Elevator representative for details.

**P** Pit Depth:
- 350 fpm: 5'-0"
- 500 fpm: 6'-6"
- 700 fpm: 6'-6"
- 1000 fpm: 11'-6"
- 1200 fpm: 22'-6"

**H** Inside Clear Cab Height: 7'-4" [5]

**O** Minimum Overhead:
- 350 fpm: 15'-3"
- 500 fpm: 16'-6"
- 700 fpm: 20'-0"
- 1000 fpm: 24'-8"
- 1200 fpm: 27'-2"

**S** Safety Beam Required per OSHA 1926.502[6]

**Z** Minimum Machine Room Height:
- Standard: 7'-6"
- Performance: 9'-8"

**Y** Minimum Machine Room Depth:
- Standard: 16'-0"
- Perfromance: 18'-0"

[1] This capacity is not available with center-opening doors.

[2] To meet the requirements of IBC code for 84" stretchers, a 4'-0" center-opening (for 4000 lbs capacity only) or 3'-6" side-opening (for 3500 lbs or 4000 lbs capacity) door is required.

[3] For seismic conditions, add 4" to hoistway width and 3" to hoistway depth.

[4] For seismic conditions, add 41/4" to hoistway width.

[5] Dimension shown is based on suspended ceiling design. An increase in cab height will result in an increase in overhead requirements.

[6] Provided and installed by others, as directed by the local thyssenkrupp office. Clear overhead is shown to the bottom of the safety beam.

[7] Pit Depth based on chain compensation. Add 2'-8" for rope compensation. For 700 fpm, chain compensation available up to 300'-0" of travel. Rope compensation required.

[8] Per ASME A17.1 rule 2.2.4.2 must have separate pit access door 10'-0" door sill to the pit floor, or 13'-9" from access door sill to pit floor, if there is not a building floor below the terminal floor.

[9] For 1000 fpm speeds, add 2" to hoistway depth. For 1200 fpm speeds, add 2" to hoistway width and 4" to depth. For seismic conditions on 700 fpm speeds, add 4" to hoistway width and 2" to depth. For 1000 and 1200 fpm speeds, add 5" to hoistway width and 4" to depth.

[10] Minimum overhead can be reduced in some cases, contact your thyssenkrupp Elevator rep if required.

Mid-rise to high-rise traction elevators

# AC gearless

Service elevators

| Car type | Travel | Speed | Capacity |
|---|---|---|---|
| Standard | 300'-0" | 350, 500 fpm | 4500-5000 lbs |

Click Car Type for specific product specs

## Service

| Cap (lbs) | Platform A X B | Hoistway[2] C X D | Front/ rear | Inside clear F x G | Door type | Door width E |
|---|---|---|---|---|---|---|
| 4500 | 6'-0" x 8'-9" | 8'-1" x 9'-8" [3] | F | 5'-8" x 7'-9½" | 2-SP | 4'-0" / 4'-6" |
| 4500 | 6'-0" x 9'-5¾" | 8'-1" x 10'-9¼" [4] | F/R | 5'-8" x 7'-10" | 2-SP | 4'-0" / 4'-6" |
| 5000 | 6'-0" x 9'-4½" | 8'-1" x 10'-2" [3] | F | 5'-8" x 8'-5" | 2-SP | 4'-0" / 4'-6" |
| 5000 | 6'-0" x 10'-1¼" | 8'-1" x 11'-4¾" [4] | F/R | 5'-8" x 8'-5½" | 2-SP | 4'-0" / 4'-6" |
| 5000H | 6'-0" x 9'-11½" | 8'-3" x 10'-9" [3] | F | 5'-8" x 9'-0" | 2-SP | 4'-0" / 4'-6" |
| 5000H | 6'-0" x 10'-8¼" | 8'-3" x 11'-11¾" [4] | F/R | 5'-8" x 9'-0½" | 2-SP | 4'-0" / 4'-6" |

Dimensional data shown above is for non-seismic zones and complies with current ASME A17.1 and CSA B44 Safety Code for Elevators. Local codes may vary from the national codes. Consult your thyssenkrupp Elevator representative for details.

**P** Pit Depth:
- 350 fpm: 5'-0"
- 500 fpm: 6'-6"

**O** Minimum Overhead:
- 350 fpm: 15'-3"
- 500 fpm: 16'-6"

**Z** Minimum Machine Room Height:
- Standard: 7'-6"

**H** Inside Clear Cab Height: 7'-4" [5]

**S** Safety Beam Required per OSHA 1926.502[6]

**Y** Minimum Machine Room Depth:
- 4500-5000 lbs: 19'-0"

[3]For seismic conditions, add 4" to hoistway width and 3" to hoistway depth.

[4]For seismic conditions, add 4¼" to hoistway width.

[5]Dimension shown is based on suspended ceiling design. An increase in cab height will result in an increase in overhead requirements.

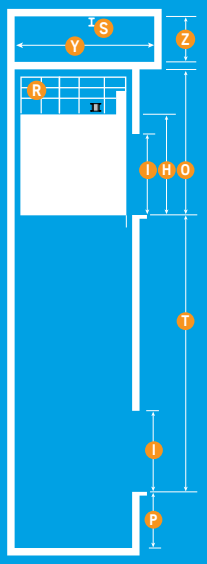
[6]Provided and installed by others, as directed by the local thyssenkrupp office. Clear overhead is shown to the bottom of the safety beam.

[10] Minimum overhead can be reduced in some cases, contact your thyssenkrupp Elevator rep if required.

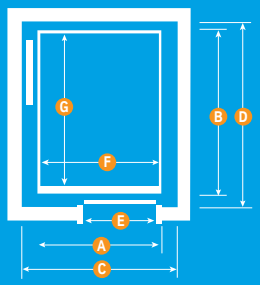
## Front opening

- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- R Car Top Railing
- S Safety Beam
- T Travel
- Y MR Depth
- Z MR Height

Front Opening (F)



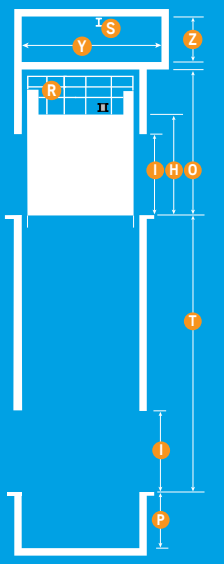

2-SP Side-Opening Doors



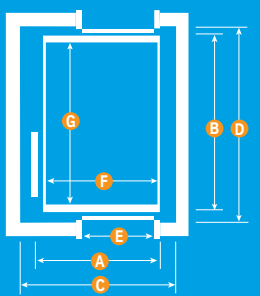

## Front and rear opening

- A Platform Width
- B Platform Depth
- C Hoistway Width
- D Hoistway Depth
- E Clear Door Opening
- F Inside Clear Width
- G Inside Clear Depth
- H Inside Clear Height
- I Entrance Height
- O Overhead
- P Pit Depth
- R Car Top Railing
- S Safety Beam
- T Travel
- Y MR Depth
- Z MR Height

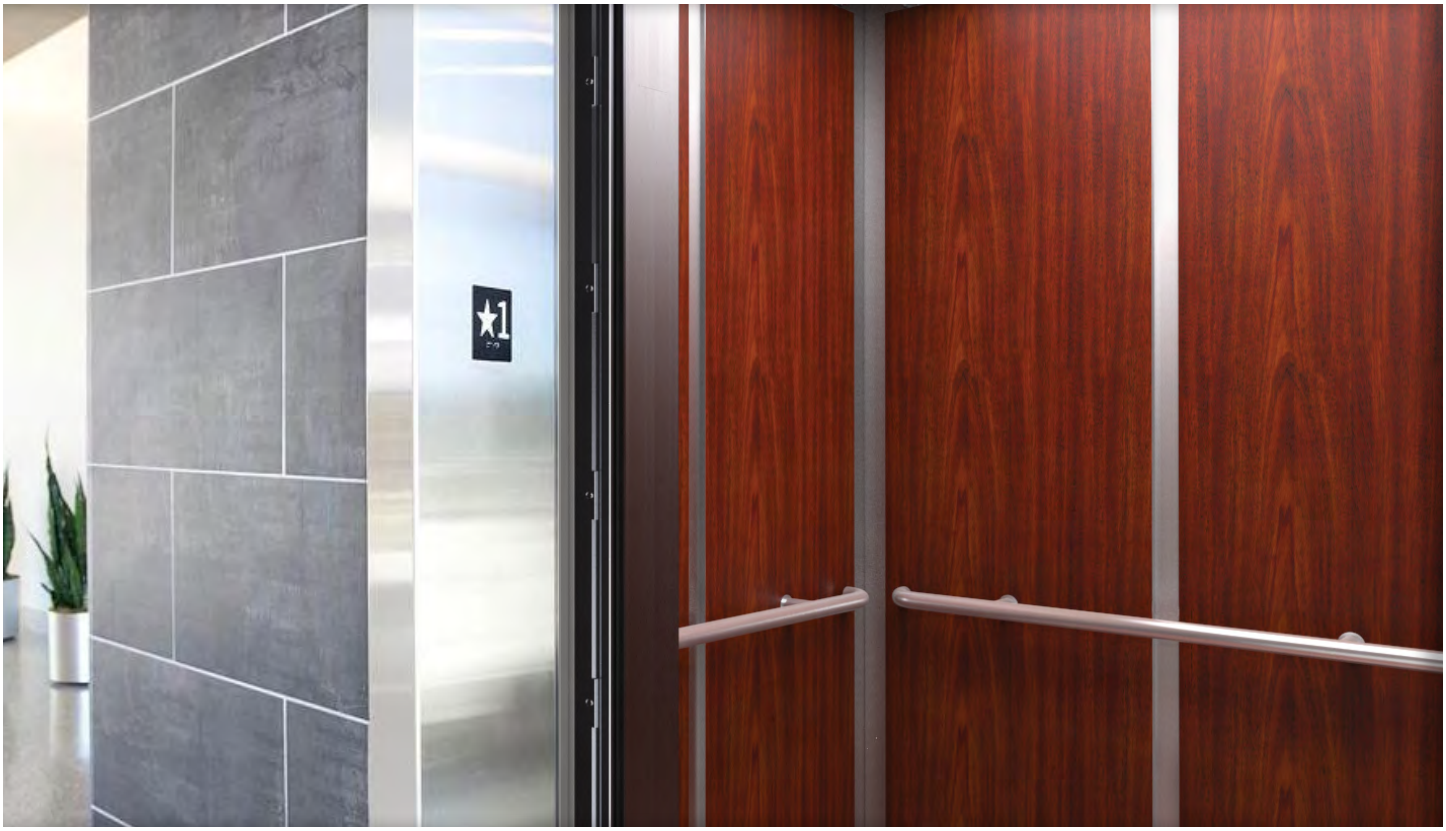
Front & Rear Opening (F/R)




2-SP Side-Opening Doors



# Interior design




We hold a Declare label for our standard cabs that can be used on Living Building Challenge projects .

LIVING BUILDING CHALLENGE

## Cab interiors can take on a beautiful form while they function so we give you choices. Customize your own or choose from our Premium and let us do the work.

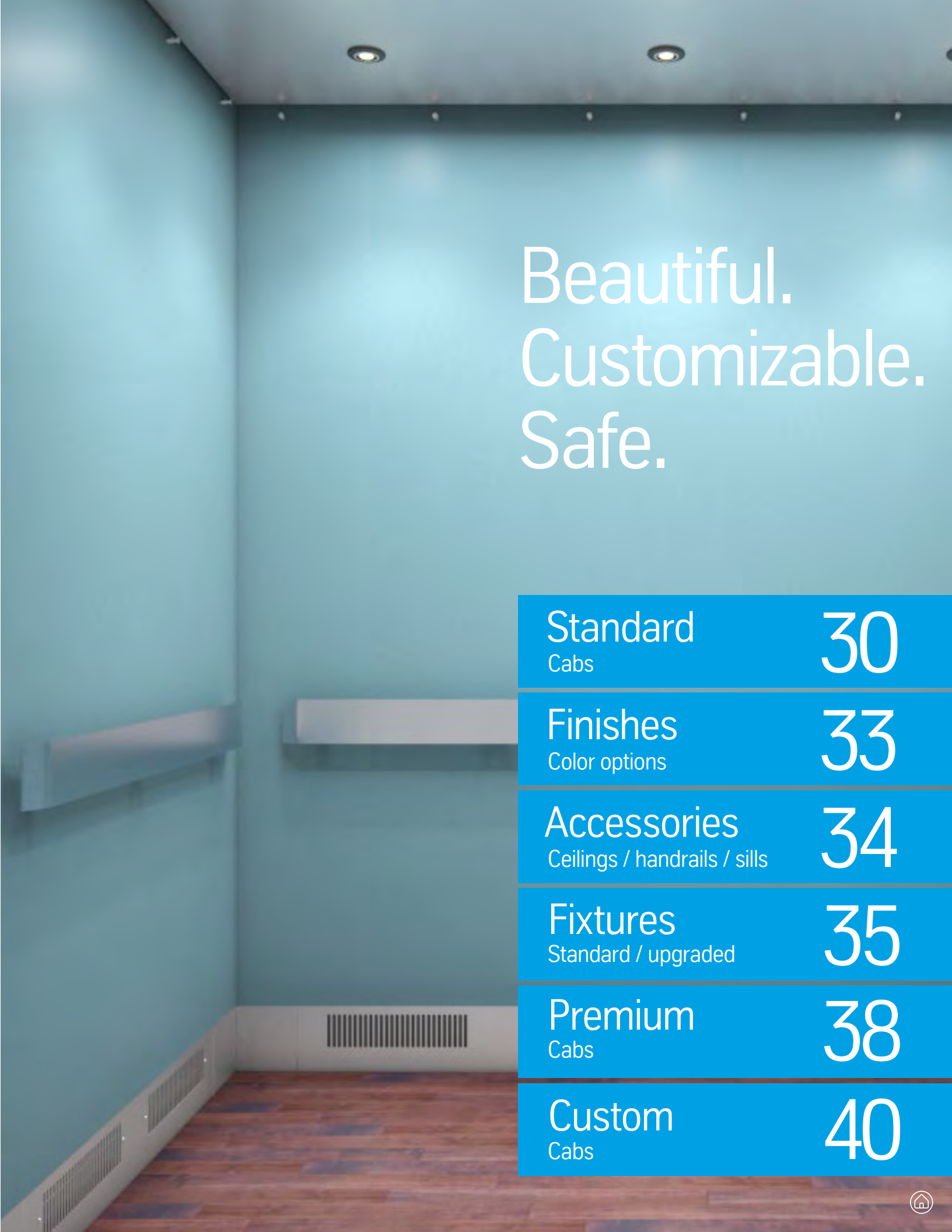
Choose signals, fixtures, door types and entrance finishes to create your cab interior. Select woods, textures, patterns, metals and colors to design a cab that conveys the look and feel of your building. Our products are environmentally conscious because taking even the smallest steps to be greener can make a lasting impression on the world we live in. We offer a complete line of elevator interiors that are free from wood products containing added urea-formaldehyde. We also utilize powder coating as opposed to solvent-based paint and are validated by a third party (UL Underwriters Laboratories) to be low emitting.

**Quality Materials.**
Durable, environmentally-safe finishes and wood materials

**Reliable Lighting.**
Low –voltage, energy saving LED lights are standard

**Energy Saving Conscious.**
Auto shut-off fans and lights conserve energy

We have over 790,000 finish combinations.

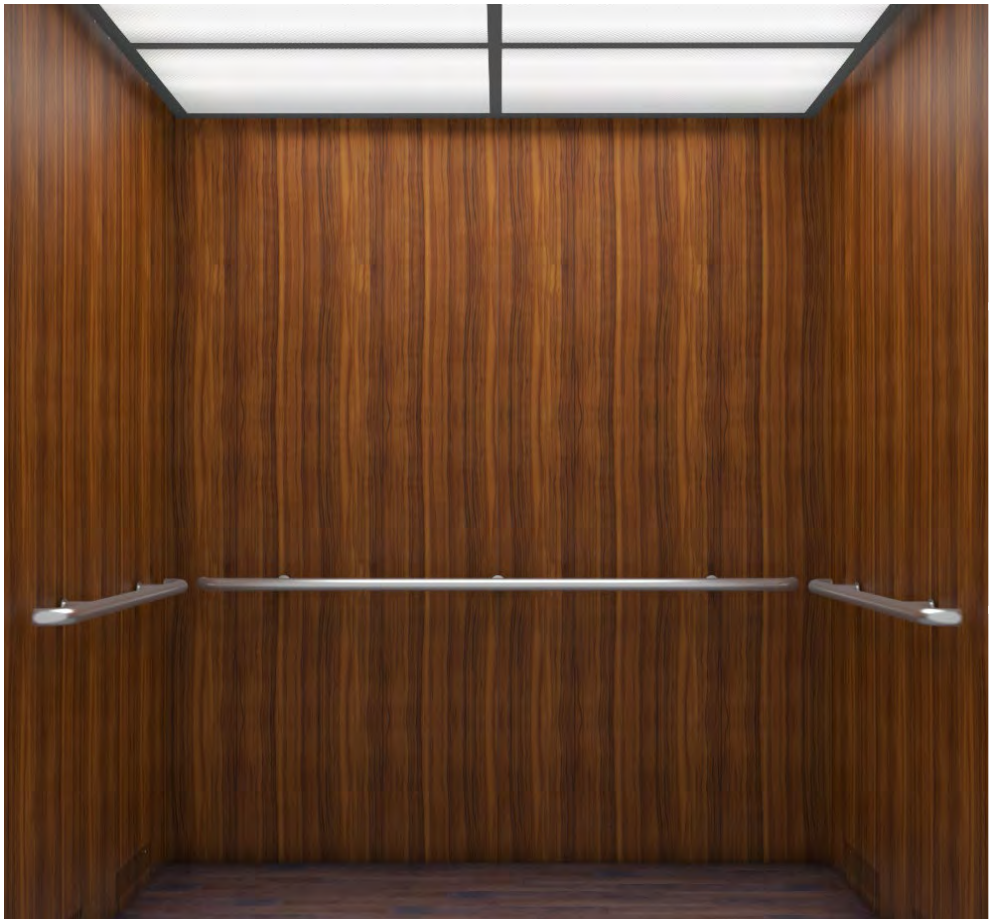


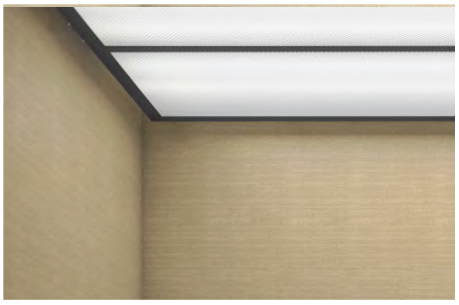
# Beautiful. Customizable. Safe.

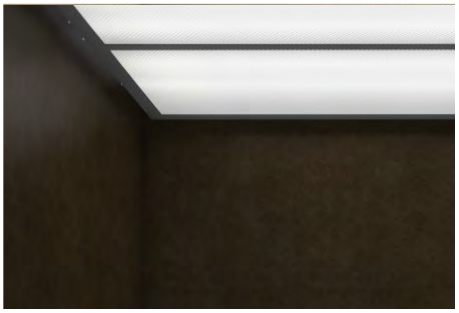
# Standard cabs

## Laminated plastic options

Level 1







## Laminate wall design

Create an impressive design with our wide variety of standard options. Interior panels include a laminate finish on a quality wood core. This cost-conscious choice is practical and durable.

Click here to explore more cab design options.

### Wall finish options

**Plastic laminates**

Woods

Solids

Patterns

### Base finish options

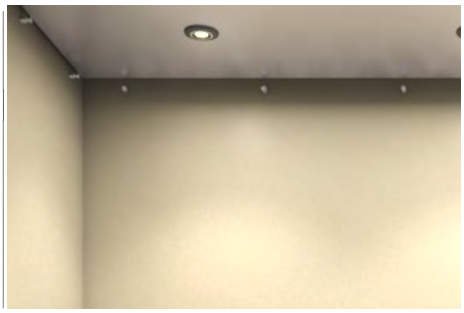
**Powder coats**

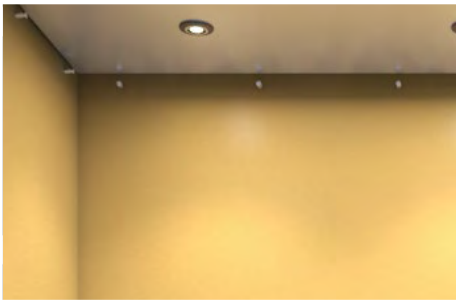
Metals

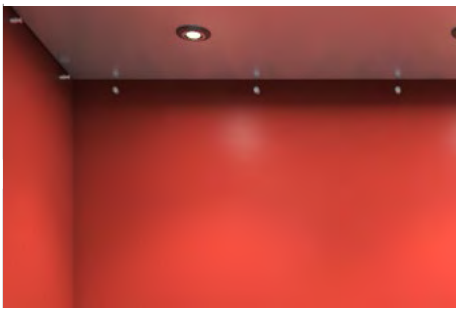
# Standard cabs

## Steel shell options

Level 2







## Steel shell design

Clean and modern flat cab interior designs convey quality. Our durable formed steel-shell cab is available in a variety of powder coat options or can be upgraded to stainless steel.

Click here to explore more cab design options.

### Wall finish options

**Powder coats**

Metals

### Base finish options

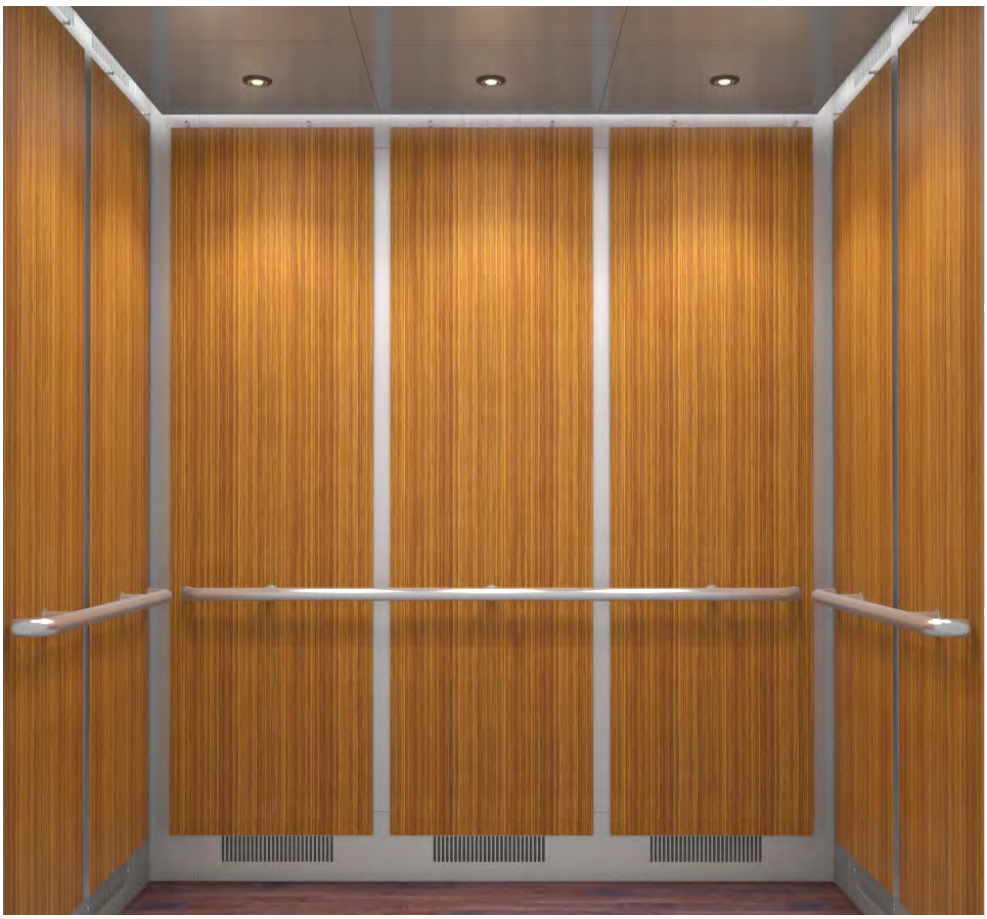
**Powder coats**

Metals

# Standard cabs

## Applied panel options

Level 3



## Panel design

Mix beauty and practicality with this decorative and durable cab. The panel design is constructed with a high-quality steel shell and vertical raised panels made with a core of urea-formaldehyde-free wood. Choose from a laminate or upgrade to stainless steel facing panels and reveals.

Click here to explore more cab design options.

### Panel finish options

**Plastic laminates**

Woods

Solids

Patterns

Metals

### Reveal, base, frieze finish options

**Powder coats**

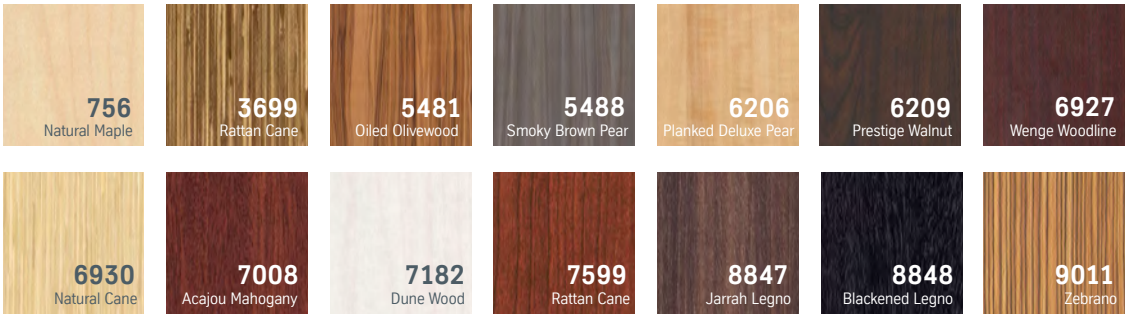
Metals

# Standard finishes

## Finish selections

### Plastic laminates

#### Woods



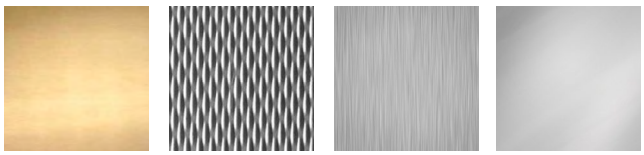

#### Solids


#### Patterns


Colors may vary. We recommend examining a large selector sheet before making a selection.

### Powder coats


### Metals



Bronze | 5WL Steel | Brushed Steel | Polished Steel

# Standard accessory options

## Ceilings

### Suspended[1]

White translucent diffusers for LED or fluorescent lighting are available with ceiling frames in a powder coated or stainless steel finish.

### Downlight[2]

Metal pan downlight ceiling features LED or halogen lighting. Lights are mounted in your choice of powder coated or stainless steel ceiling panels.

### Island downlight[2]

Particleboard core faced with your choice of plastic laminate, stainless steel or bronze. Houses a concealed emergency exit, as well as concealed metal framework.

## Handrails

### Cylindrical continuous[1]

1½" cylindrical handrail is a continuous metal form with ends turned toward the wall. We also offer straight endcaps in lieu of the returned ends. Comes in brushed stainless steel.

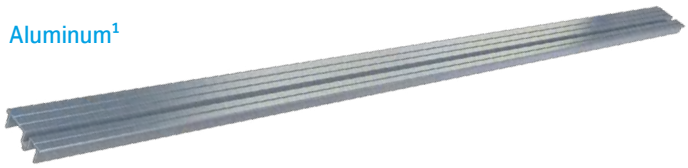
### Flat bar continuous

Metal bar handrail is available in ¼" thickness and 2", 4", or 6" widths. Comes in brushed stainless steel.

## Sills

Our cab sill finishes allows you to match your sills to any other design component inside the cab.
The standard sill design is aluminum; or you can upgrade the finish to nickel silver for maximum durability.

Aluminum[1]



Nickel silver

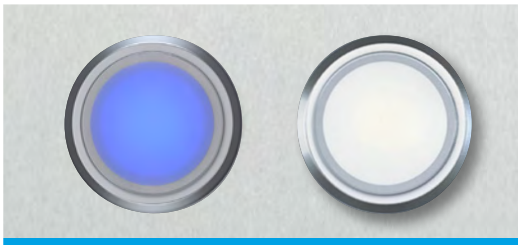
[1] Comes standard. Finishes may vary based on your project selections.
[2] Lighting options may vary depending on cab size.

# Standard fixtures

## Signa4

Position indicator
With directional arrows


Intermediate hall station
With fire services devices



Push button
Available in blue & white LED lighting

Car operating panel

Hall position indicator

Terminal hall lantern
with arrow or domes

Intermediate hall lantern / car riding lantern
with arrow or domes

Intermediate hall station
with fire services & appendix H/O signage

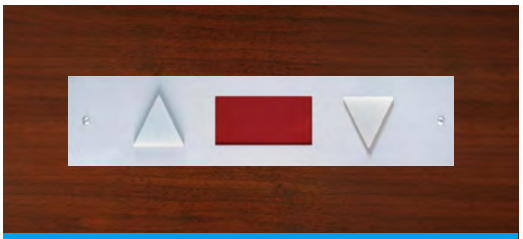
Intermediate hall station

### Product details

- Satin stainless-steel finish with charcoal trim
- Allows for renovation of metal finish without requiring removal of box or frame

# Upgraded fixtures

## Traditional



Position indicator
With directional arrows


Intermediate hall station
With fire services devices

Push button
Available in blue, white, red & green LED lighting

Car operating panel

Combo hall lantern / position indicator discrete


Intermediate hall lantern / car riding lantern

with arrows

Terminal hall lantern

Terminal hall station

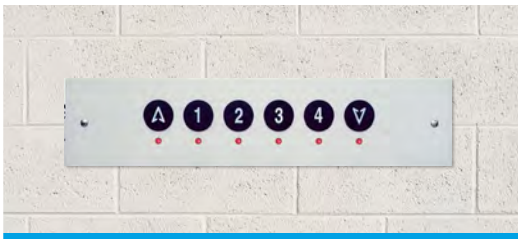
with fire services & appendix H/O signage

Intermediate hall station

### Product details

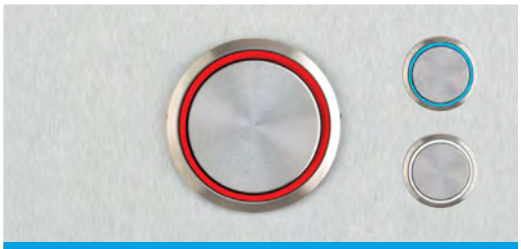
- Faceplates in brushed or polished stainless steel
- Position indicator displays car location with matrix of red LED-illuminated dots
- Buttons available with white, blue, red or green LED lighting

# Vandal-resistant




**Position indicator**
With directional arrows


**Intermediate hall station**
With fire services devices



**Push button**
Available in red, blue & white LED lighting

**Car operating panel**

**Combo hall lantern / position Indicator**

**Terminal hall lantern**
with arrow

**Intermediate hall lantern**
with arrow

**Intermediate hall station**
with fire services & appendix H/O signage

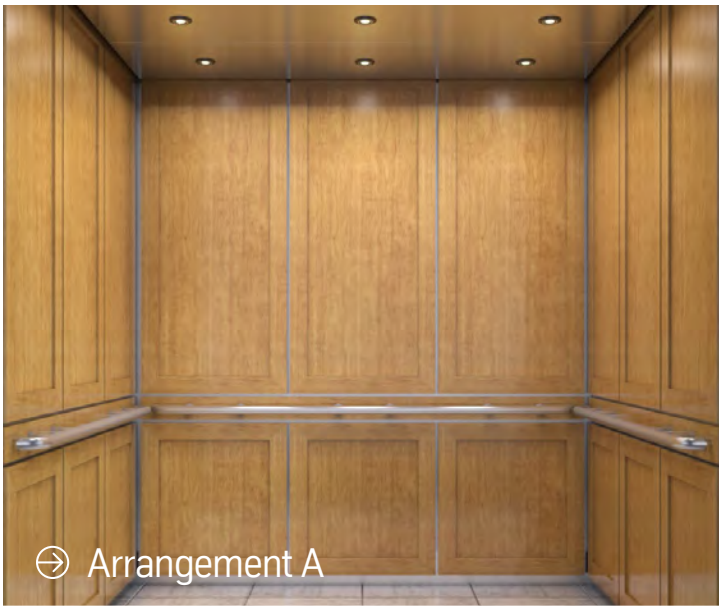
**Terminal hall station**
with fire service key switch

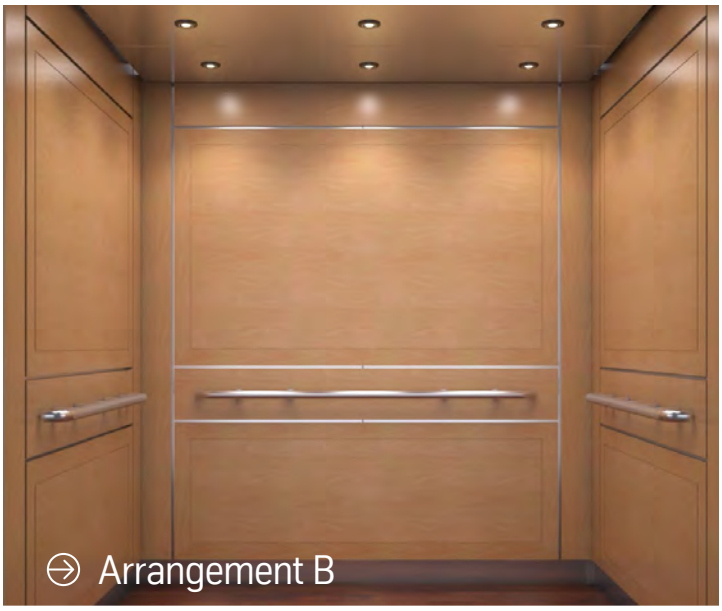
## Product Details

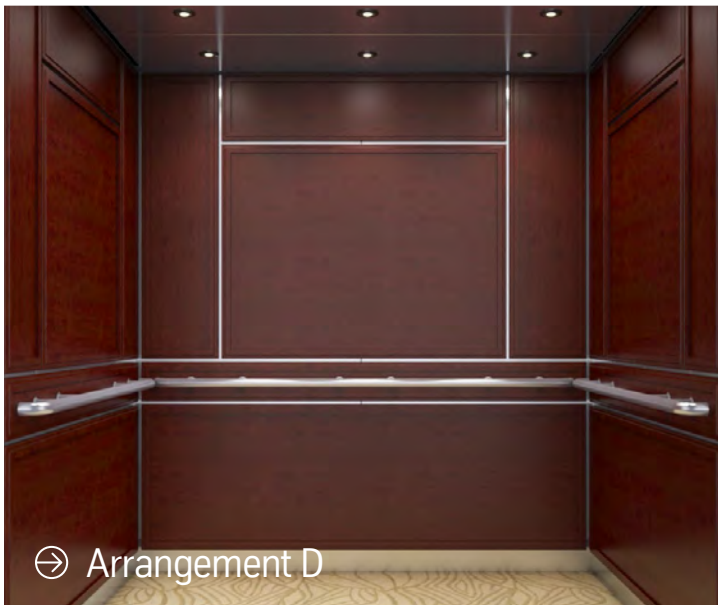
- Faceplates in brushed or polished stainless steel
- Extra level of protection in challenging environments
- Pry-resistant hall jamb symbols and buttons are mounted flush with the door frame


Arrangement C

# Premium cabs




Innovative clip system for a quicker, quieter and cleaner install

Custom-designed look without the custom price tag

## Easy cab design

Get the look of custom designed interiors without the custom pricetag. Choose from pre-designed arrangements and finish options. Our three-step approach will keep your schedule and budget in line.

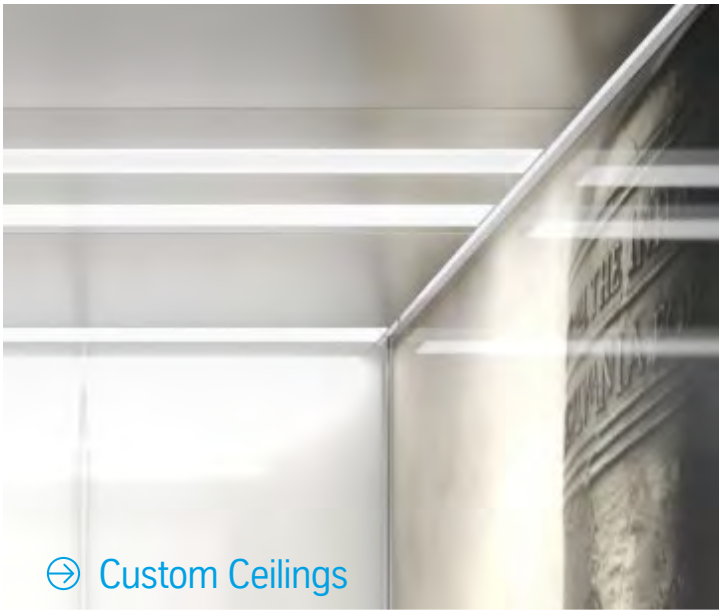
[1] Carpets by others. Configurations shown above include standard and optional selections.

[2] Colors may vary. We recommend examining a large selector sheet before making a selection.

Additional arrangements available.


As unique
as your
building.

# Custom cabs



Custom Ceilings

Use the materials and colors of your choice.

Complement your decor or make a design statement.

## Custom design

Elevator cab interiors are a blank slate.  We can help you customize to tastefully complement your buildings décor or make a statement with a unique design.

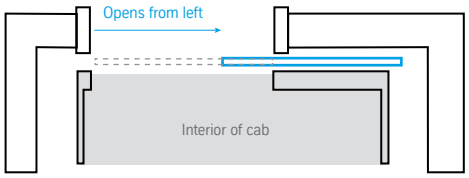
# Door configurations

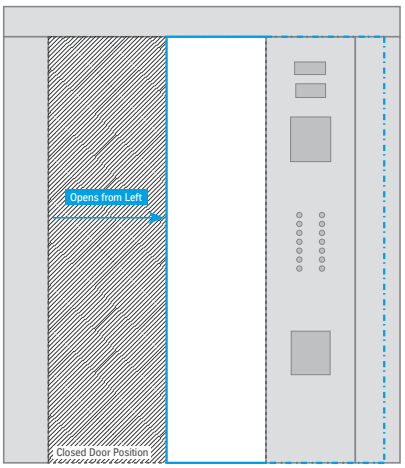
Door orientation options offer a range of benefits to accommodate varying project needs.

Most economical

## One-speed

The most economical door offering, available with either right- or left-hand opening. (right-hand shown)

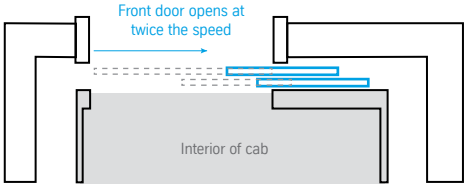


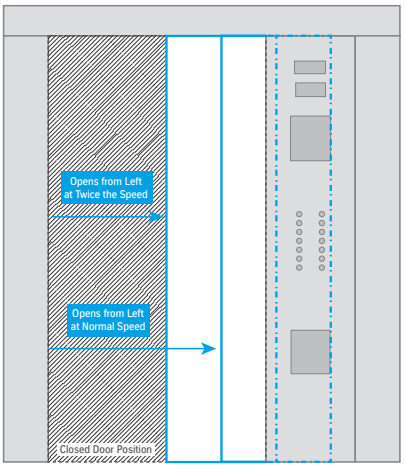




Wider door opening

## Two-speed

Provides a wider opening without compromising door cycling time. Two doors move in the same direction, one sliding faster than the other. Available with either right- or left-hand opening. (right-hand shown)

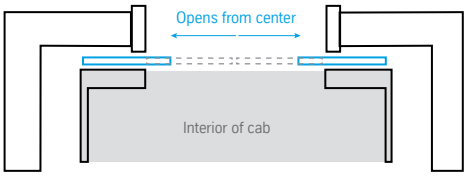


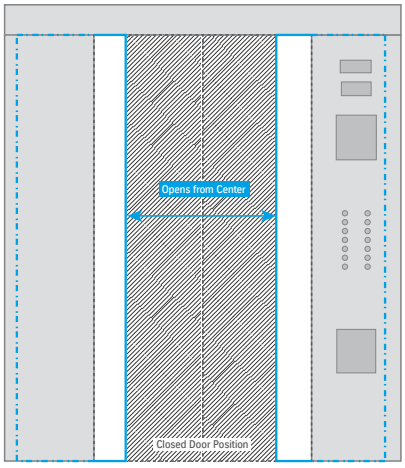




Best for high traffic

## Center Opening

Permits the quickest entry and exit, improving elevator service while giving an attractive, symmetrical appearance.

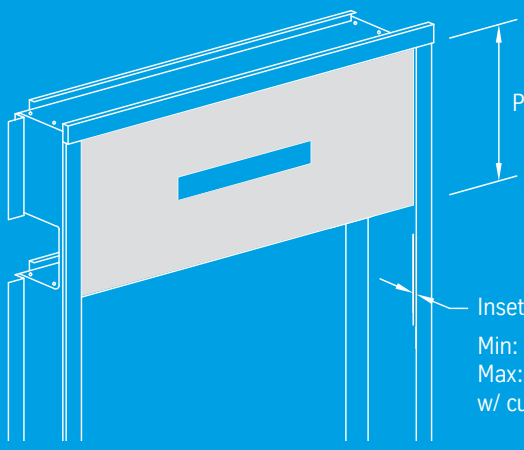



*Door configurations may vary based on elevator system chosen.

# Entrance details

## Transoms




### Standard height

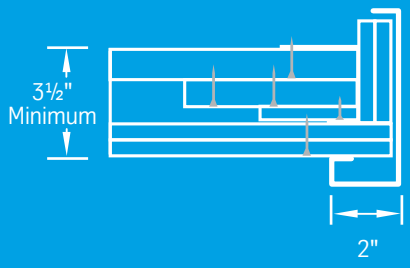
This transom arrangement features a top panel that spans the width of the door and mounts flush with the entrance frame. The panel height is variable, but limited based on the wall construction type – 4” max height for drywall and 12” max height for masonry walls. Finish options available to match the entrance frame, which include powder coat and metal options featured on page 33.

### Full height

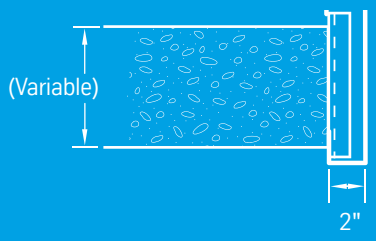
This transom arrangement is used to close in the hoistway opening and features extended height columns with a 2” trim panel across the top. The panel has a variable height and inset as shown above, and can include a cutout for an elevator hall signal fixture. Finish options available to match the entrance frame, which include powder coat and metal options featured on page 33.

## Entrance wall construction

Drywall type

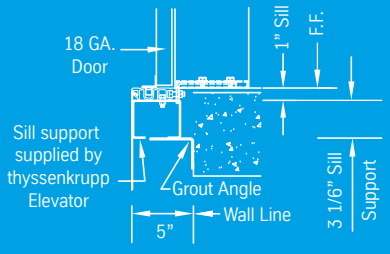



Masonry type

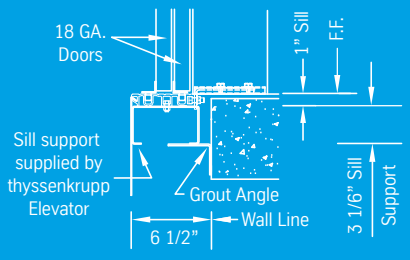



## Standard sill supports

Center opening and single speed doors




Two speed doors




Front walls should be left out until entrances are set in place or leave a minimum rough opening that is 15" wider and 15" higher than frame opening of doorway.

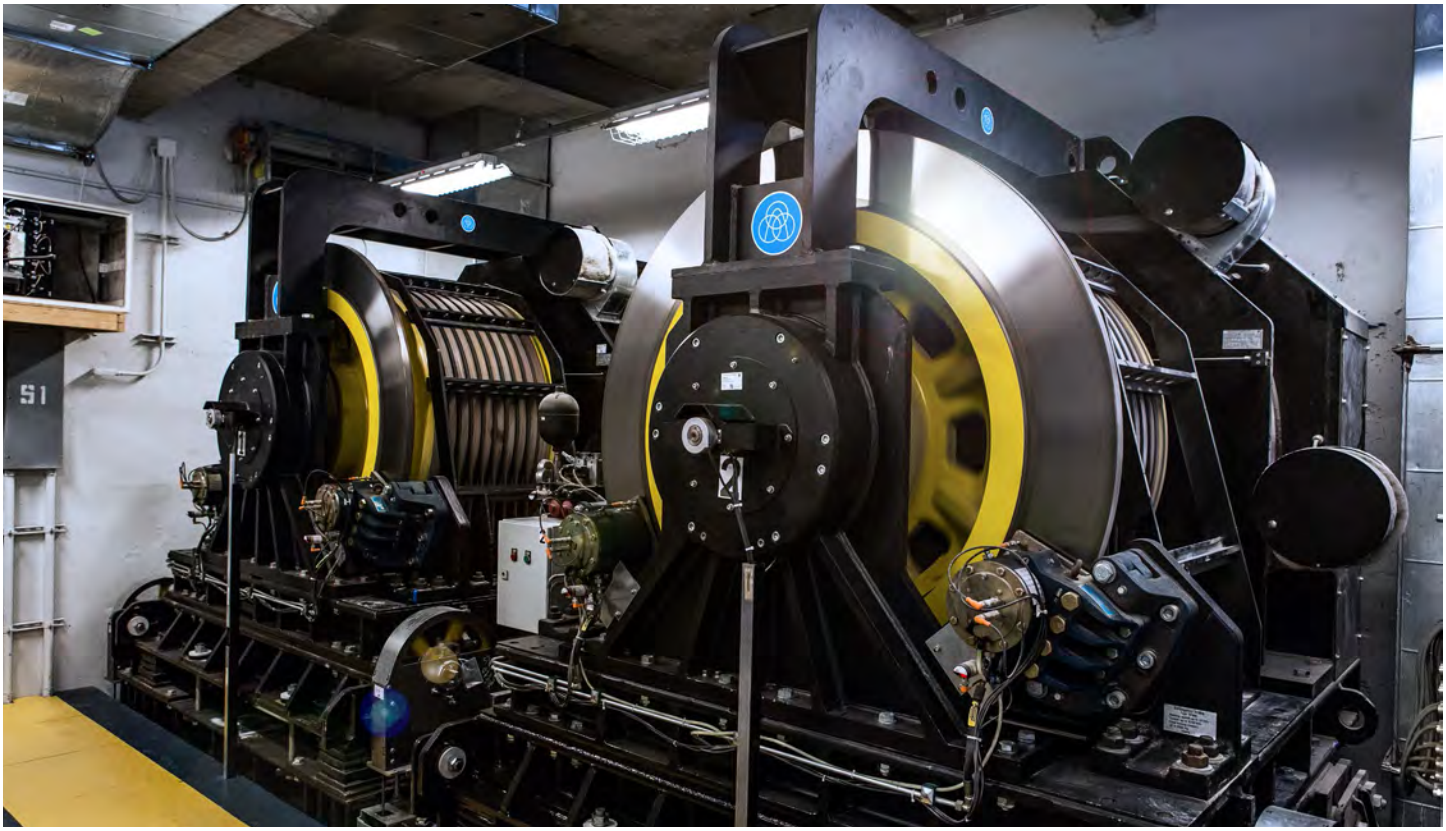
Sill support details shown above are for thyssenkrupp Elevator's standard entrance design.

These diagrams show wall thickness and construction detail required in order to supply a minimum 1½ HR. Warnock Hersey Label on entrances. The dimension shown (3½") is the minimum wall thickness.

Hand of doors is the direction the doors open, determined by standing inside of the elevator car facing toward the doors.

For additional entrance design and application arrangements, contact your local thyssenkrupp Elevator representative for details.

# Innovations and enhancements



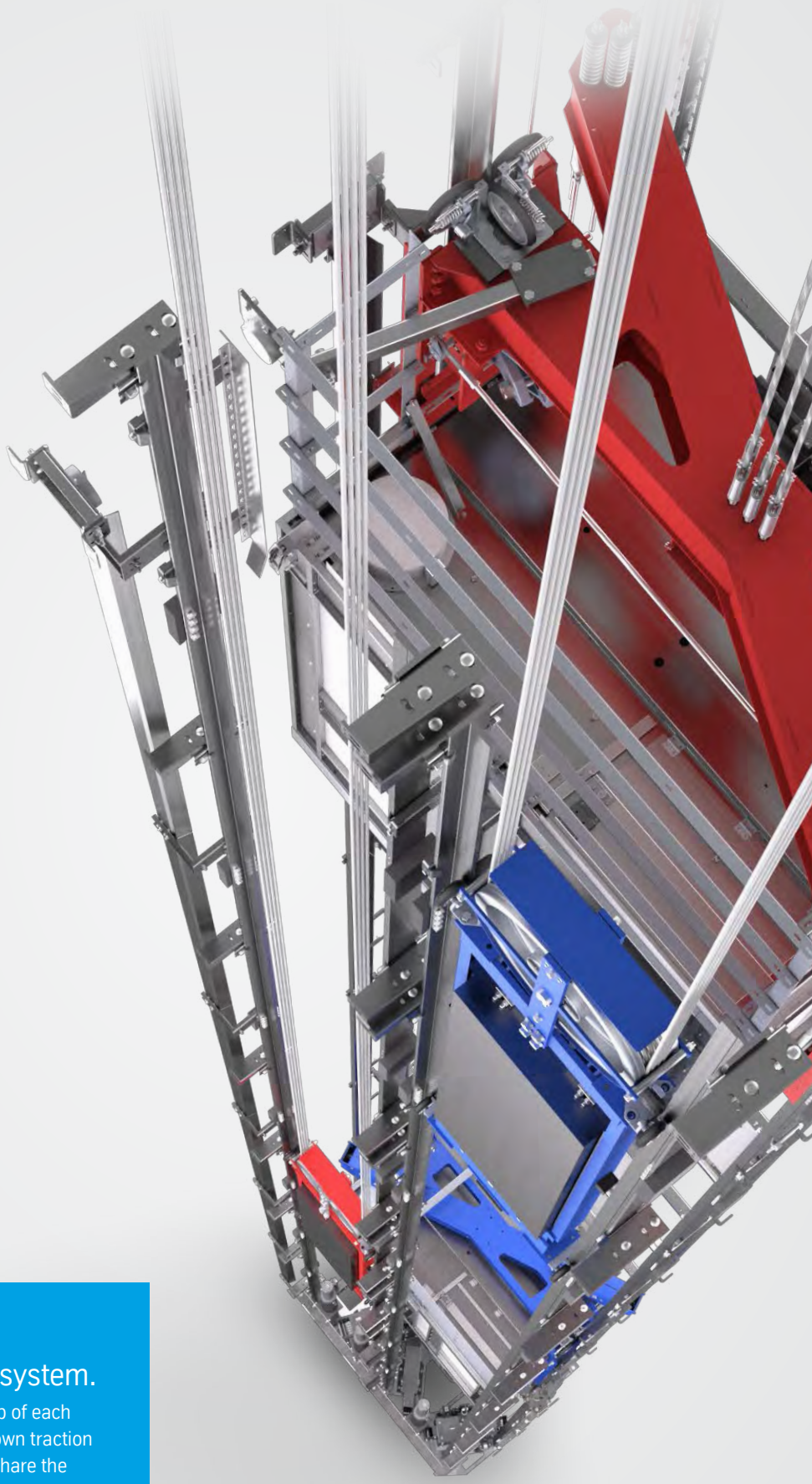

thyssenkrupp has over 215 LEED professionals to help guide our customers as they build projects with tomorrow in mind.

## Raise the standard in safety, sustainability and performance with thyssenkrupp's innovations.

Your elevator system becomes more agile with our intelligent control system that reduces wait times and keeps your elevators secure. Move more people in fewer elevator shafts with the TWIN elevator system that operates two cabs in one hoistway. Predictive and pre-emptive maintenance is provided with the Internet of Things enabled MAX. And employ the absolute latest emergency exit equipment with our first in the industry evacuation solution that utilize elevators. We are also at the forefront of our industry when it comes to sustainability. From elevator products to lighting to LEED certified manufacturing facilities; we are taking the right actions today for a better world tomorrow.

# TWIN

## 2 Cabs.
## 1 Shaft.
## 0 Crowds.



### TWIN. A precise and efficient elevator system.

The TWIN® elevator system has two cars, arranged on top of each other, that operate in one hoistway. Each elevator has its own traction drive, controller, ropes, counterweight and governor and share the same guide rails and landing doors. The cars move independently in the hoistway; However, they always have a minimum separation.

**Twin motors in perfect sync & harmony.**
Motors operate independently and efficiently on top of one shaft.

Fully certified by the German TÜV inspectorate — the most stringent and rigorous safety standard an elevator can attain.

# Safety is standard with TWIN

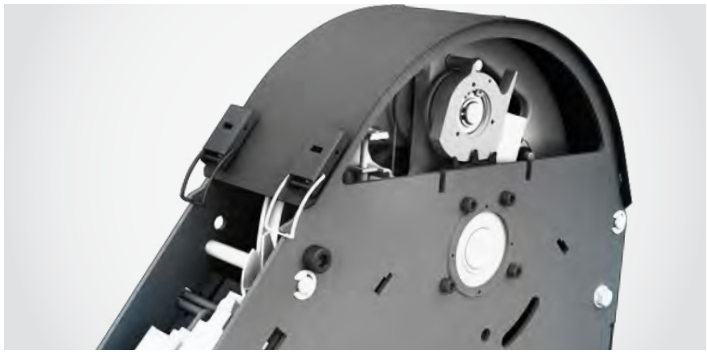
We provide four levels of safety to prevent TWIN cabs in the same hoistway from getting too close to each other.


## 1 Intelligent allocation of calls

Requests are always distributed by the Destination Controls so elevator cars do not obstruct each other and a minimum distance is always observed.

## 2 Emergency stop function

If the safety distance is breached, the system shuts down the drives and activates the brakes and triggers an emergency stop for both elevator cars.



## 3 Minimum safety distances

The minimum separation is constantly monitored automatically: In order to avoid an emergency stop, the system will stop at the next landing to allow the other car to move on before continuing to its destination.

## 4 Automatic safety gear

The safety gears of both elevator cars are activated in the very unlikely event that the first three safety stages fail or there is an insufficient deceleration of the elevator cars. It is not possible for the elevator cars to make contact.

TWIN is in compliance with ASME A17.7/CSA B44.7; A17.7 specifically intended for new elevator technology and practices.

Safety level 3 and 4 will be monitored by an independent control system according to **IEC EN 61508** — giving TWIN the highest safety classification of **Safety Integrity Level 3 (SIL3)**

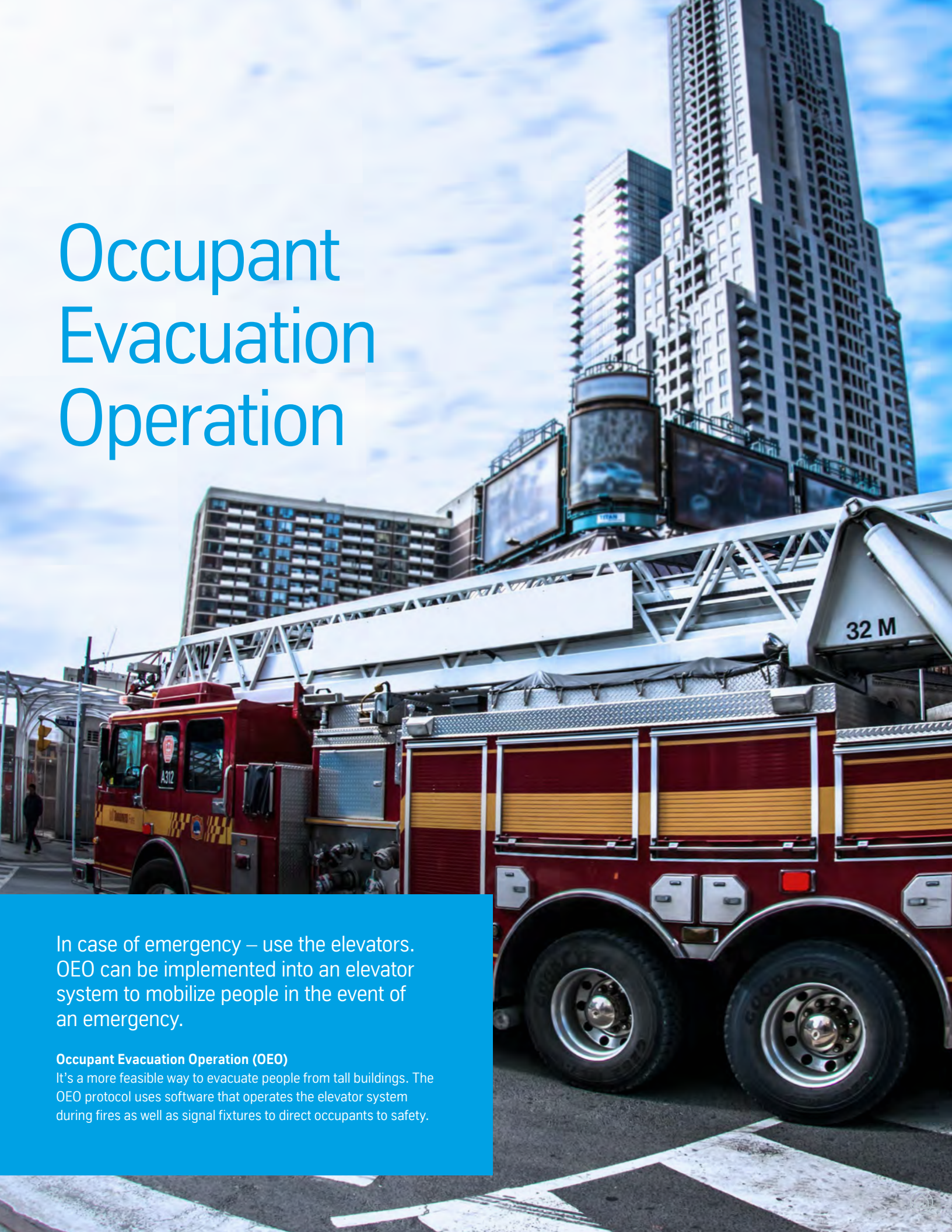
System satisfies the regulations in accordance with elevator directive **95/16/EC and EN 81-1** with approved deviations and is EN 81-A3 compliant.

# MAX Predictive Maintenance

The elevator industry's first real-time, cloud-connected predictive maintenance solution is set to take elevator availability, reliability and efficiency to new heights.

**MAX**
Its smart elevator-monitoring solution will improve ride efficiency, while also alerting technicians to potential problems before breakdowns happen.

# Occupant Evacuation Operation




In case of emergency – use the elevators. OEO can be implemented into an elevator system to mobilize people in the event of an emergency.

**Occupant Evacuation Operation (OEO)**
It's a more feasible way to evacuate people from tall buildings. The OEO protocol uses software that operates the elevator system during fires as well as signal fixtures to direct occupants to safety.

# thyssenkrupp Elevator Locations

## United States offices

### » Alabama
**Birmingham** 205 945-0062

### » Alaska
**Anchorage** 907 522-3002

### » Arizona
**Phoenix** 602 257-0216
**Tuc son** 520 622-2452

### » Arkansas
**Little Rock** 501 407-9030

### » California
**Anaheim** 714 939-0888
**Fresno** 559 271-1238
**Hayward** 510 476-1900
**Los Angeles** 323 278-9888
**Sacramento** 916 376-8700
**San Diego** 619 596-7220
**San Francisco** 415 544-8150
**San Jose** 408 392-0910
**Santa Barbara** 805 967-0131

### » Colorado
**Colorado Springs** 719 548-0211
**Denver** 303 790-8566
**Eagle** 970 328-5955
**Fort Collins** 970 221-1744

### » Connecticut
**New Haven** 860 828-6672

### » Florida
**Ft Lauderdale** 954 971-6500
**Ft. Myers** 239 334-2511
**Gainesville** 352 376-2241
**Jacksonville** 904 260-4656
**Miami** 305 592-7722
**Orlando** 407 425-3496
**Pensacola/Mobile Area** 850 477-0015
**West Palm Beach** 561 842-5761
**Sarasota/Bradenton** 941 753-4787
**Tallahassee** 850 576-0161
**Tampa** 813 287-1744
**Vero Beach** 772 567-0001

### » Georgia
**Atlanta** 770 916-0555
**Macon** 478 475-5438
**Marietta** 770 916-0555
**Savannah** 912 354-8800

### » Hawaii
**Honolulu** 808 834-6300

### Idaho
**Boise** 208 658-0000

### » Illinois
**Chicago** 630 652-4000
**Peoria** 309 691-2596

### » Indiana
**Evansville** 812 475-9419
**Indianapolis** 317 595-1125

### » Kansas
**Kansas City** 913 888-8046
**Wichita** 316 529-2233

### » Kentucky
**Lexington** 859 252-0386
**Louisville** 502 266-6014

### » Louisiana
**Baton Rouge** 225 928-1120
**New Orleans** 504 733-6141

### » Maine
**Brewer** 207 989-3255

### » Maryland
**Baltimore** 410 636-3280
**College Park** 301 345-6400
**Hagerstown** 301 739-1314
**Ocean City** 410 520-0022

### » Massachusetts
**Boston** 617 547-9000

### » Michigan
**Grand Rapids** 616 942-4710
**Detroit** 734 953-3734

### » Minnesota
**Duluth** 218 624-5566
**Minneapolis** 612 588-7844

### » Mississippi
**Jackson** 601 922-9400

### » Missouri
**Springfield** 417 581-9466
**St. Louis** 314 991-0800

### » Montana
**Bozeman** 406 587-3895

### » Nevada
**Las Vegas** 702 262-6775
**Reno** 775 329-0400

### » New Jersey
**Atlantic City** 609 567-2333
**Cranford** 908 497-9297

### » New Mexico
**Albuquerque** 505 856-5800

### » New York
**Buffalo** 716 681-7900
**Elmsford** 914 347-3450
**Long Island** 631 491-3111
**Manhattan** 212 947-8800
**Rochester** 585 359-9290
**Syracuse** 315 437-7541

### » North Carolina
**Charlotte** 704 529-1000
**Greensboro** 336 272-4563
**Raleigh** 919 851-8557

### » North Dakota
**Fargo** 701 232-2673

### » Ohio
**Cincinnati** 513 241-6000
**Cleveland** 440 717-0080
**Columbus** 614 895-8930
**Toledo** 419 666-3304

### » Oklahoma
**Oklahoma City** 405 949-1916
**Tulsa** 918 665-2040

### » Oregon
**Eugene** 541 683-7848
**Portland** 503 255-0079

### » Pennsylvania
**Allentown** 610 366-0161
**King of Prussia** 610 992-8180
**Philadelphia** 215 405-2340
**Pittsburgh** 412 367-7500
**York** 717 767-5600

### » Puerto Rico
**Puerto Rico** 787 708-5605

### » Rhode Island
**Providence** 866 989-3555

### » South Carolina
**Columbia** 803 798-3895
**Greenville** 864 675-0096
**Myrtle Beach** 843 448-2016

### » South Dakota
**Sioux Falls** 605 332-4950

### » Tennessee
**Chattanooga** 423 499-2216
**Knoxville** 865 588-8517
**Memphis** 901 377-1993

### » Texas
**Austin** 512 447-9511
**Corpus Christi** 361 299-0033
**Dallas Central** 972 785-0505
**Dallas Downtown** 214 303-1389
**El Paso** 915 595-0171
**Ft. Worth** 817 922-9590
**Houston** 713 849-2191
**Houston Downtown** 713 654-7700
**Midland** 432 683-1488
**San Antonio** 210 495-8585
**Temple** 254 778-3741
**Tyler** 903 533-8844

### » Utah
**Salt Lake City** 801 908-7433

### » Virginia
**Newington** 571 642-0530
**Norfolk** 757 547-9025
**Richmond** 804 355-9792
**Roanoke** 540 563-5700

### » Washington
**Everett** 425 438-0309
**Seattle** 425 702-1200
**Spokane** 509 533-2701
**Tacoma** 253 566-1751

### » West Virginia
**Charleston** 304 342-8115

## Canada offices

### » Alberta
**Calgary** 403 259-4183
**Edmonton** 780 488-0976

### » British Columbia
**Kelowna** 250 763-2804
**Vancouver** 604 294-2209
**Victoria** 250 474-1150

### » Manitoba
**Winnipeg** 204 697-0700

### » New Brunswick
**Saint John** 506 634-1063
**Moncton** 506 855-3357

### » Newfoundland
**St. John's** 709 739-4038

### » Nova Scotia
**Halifax** 902 454-2456

### » Ontario
**Hamilton** 905 385-1785
**Kingston** 613 542-2904
**London** 519 652-0800
**Mississauga** 905 602-6232
**North York** 416 496-6000
**Ottawa** 613 731-0810
**Scarborough** 416 291-2000
**Sudbury** 705 673-4702
**Toronto** 416 599-2002
**Whitby** 905 579-0471

### » Quebec
**Montreal** 514 631-6776
**Quebec City** 418 682-1214
**Repentigny** 450 582-8922

### » Saskatchewan
**Regina** 306 352-8608
**Saskatoon** 306 242-6467



**thyssenkrupp Elevator**
2600 Network Blvd., Ste. 450
Frisco, TX 75034
Phone (877) 230-0303
thyssenkruppelevator.com

**engineering.tomorrow.together.**